

FIG. 1A

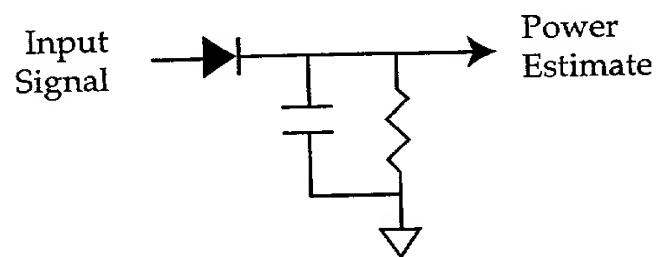


FIG. 1B

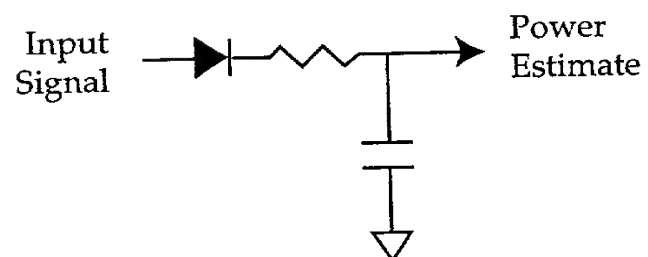


FIG. 1C

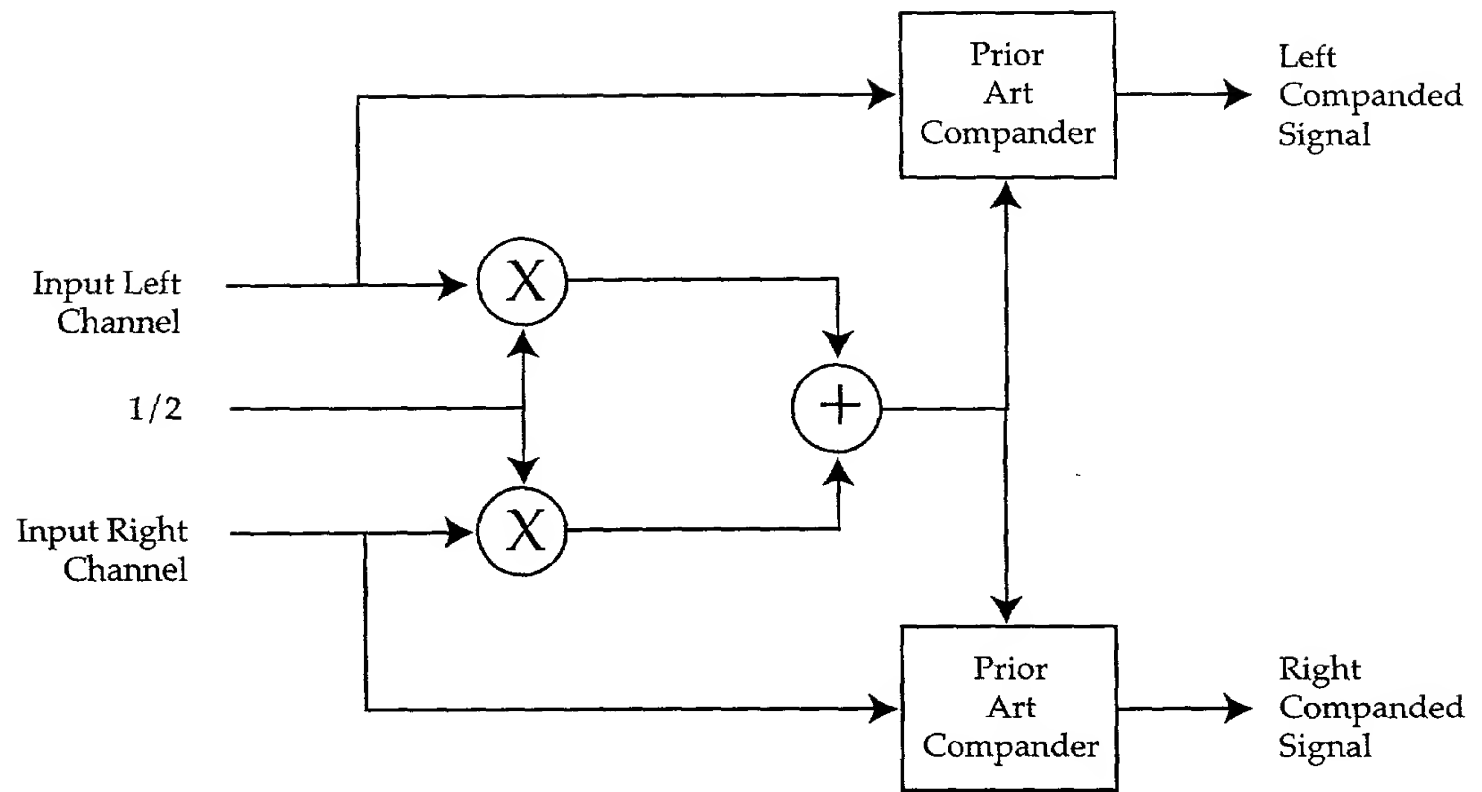


FIG. 1D

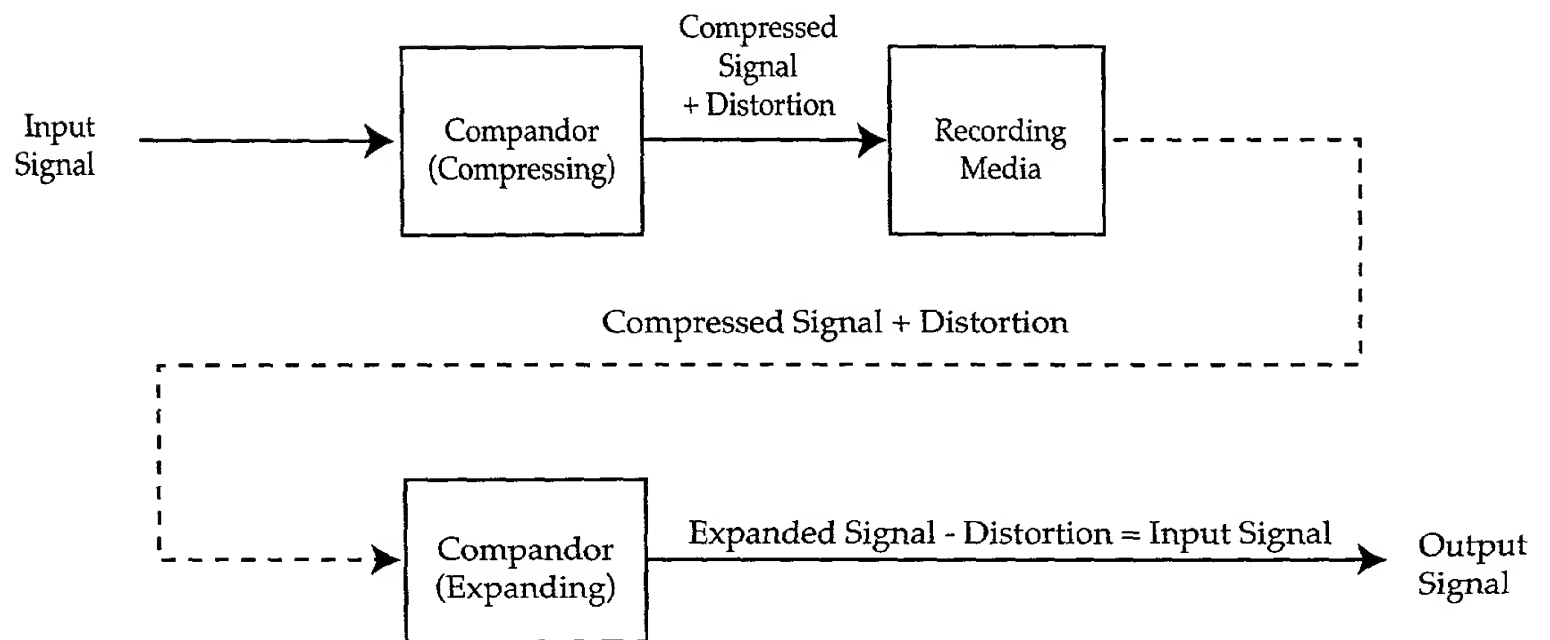


FIG. 1E

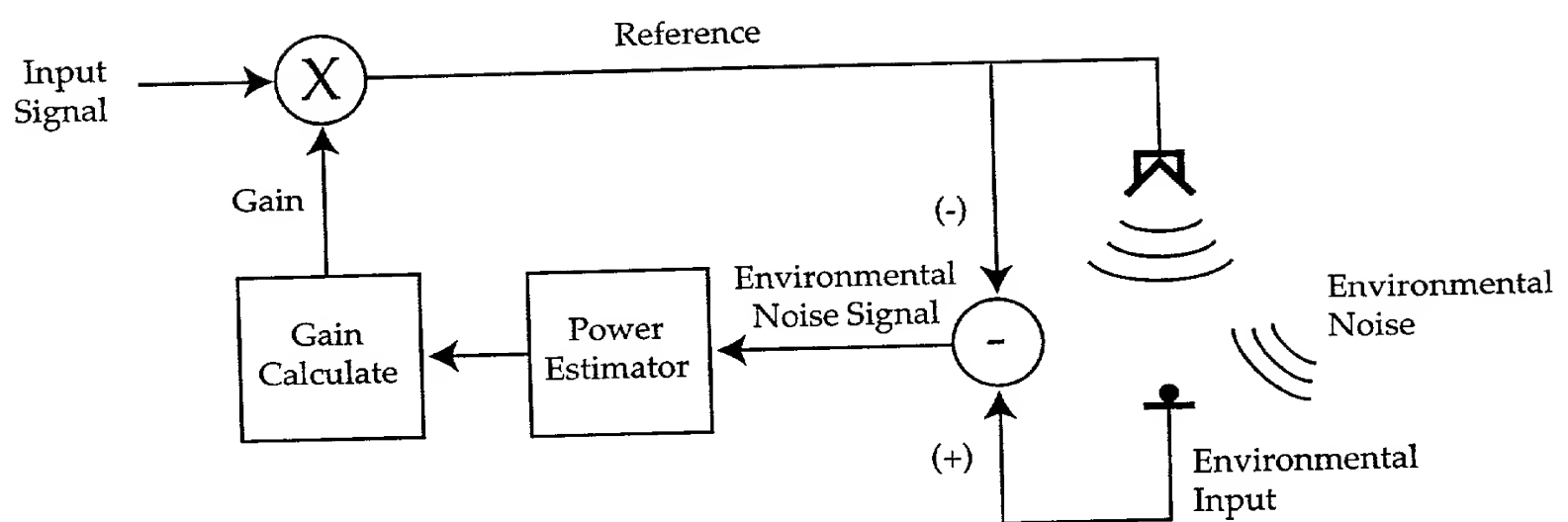


FIG. 2

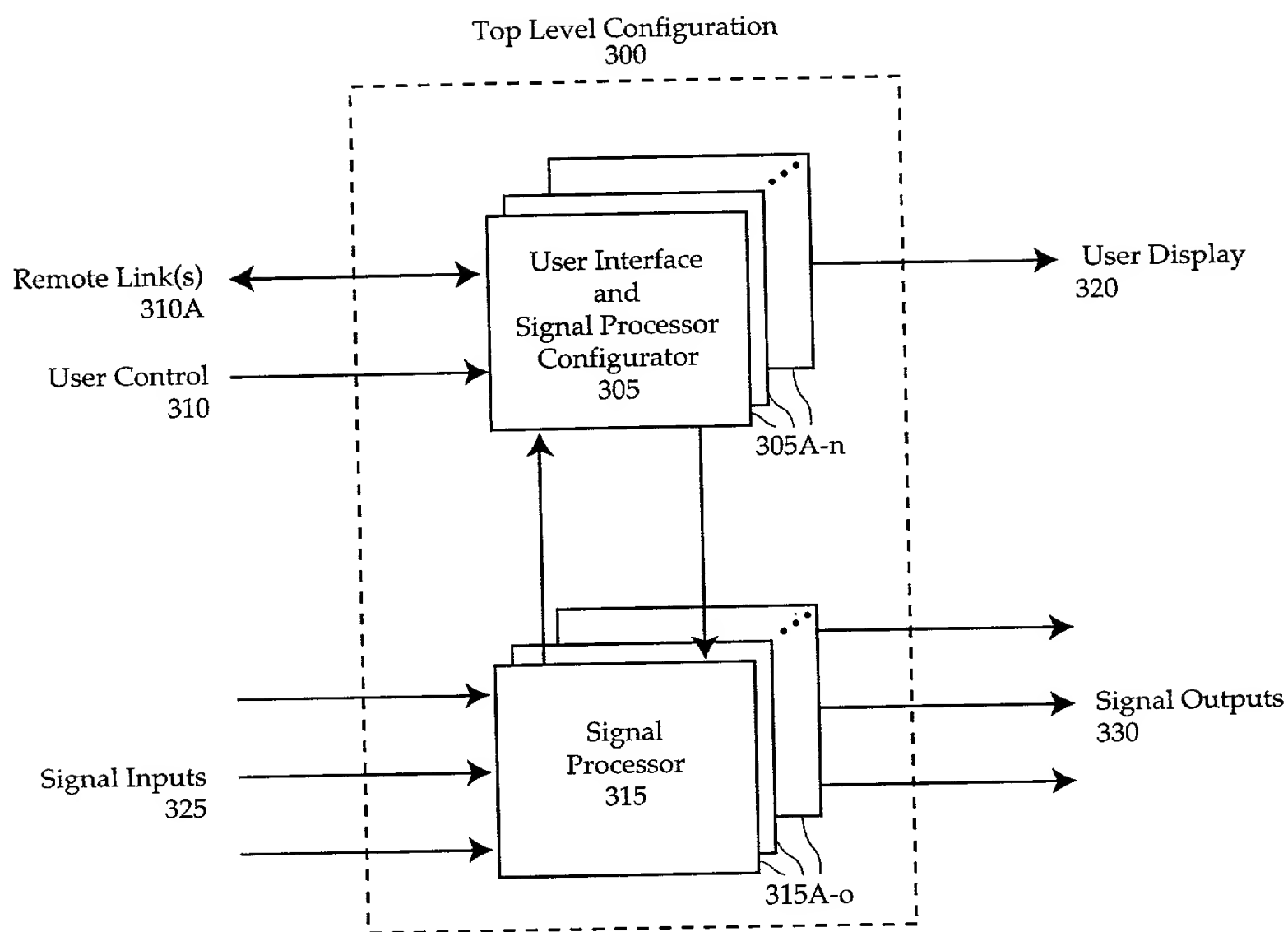


FIG. 3A

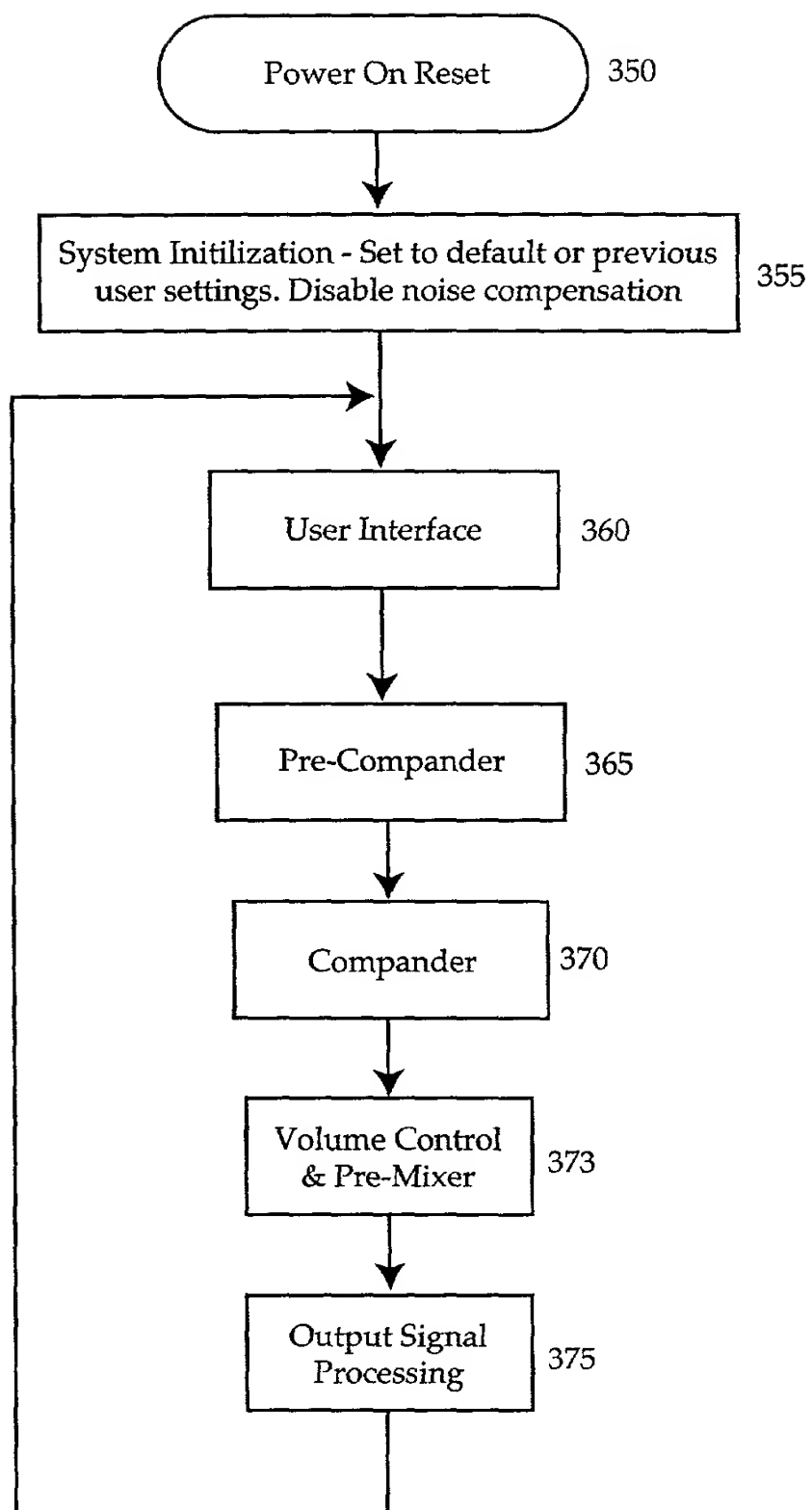


FIG. 3B

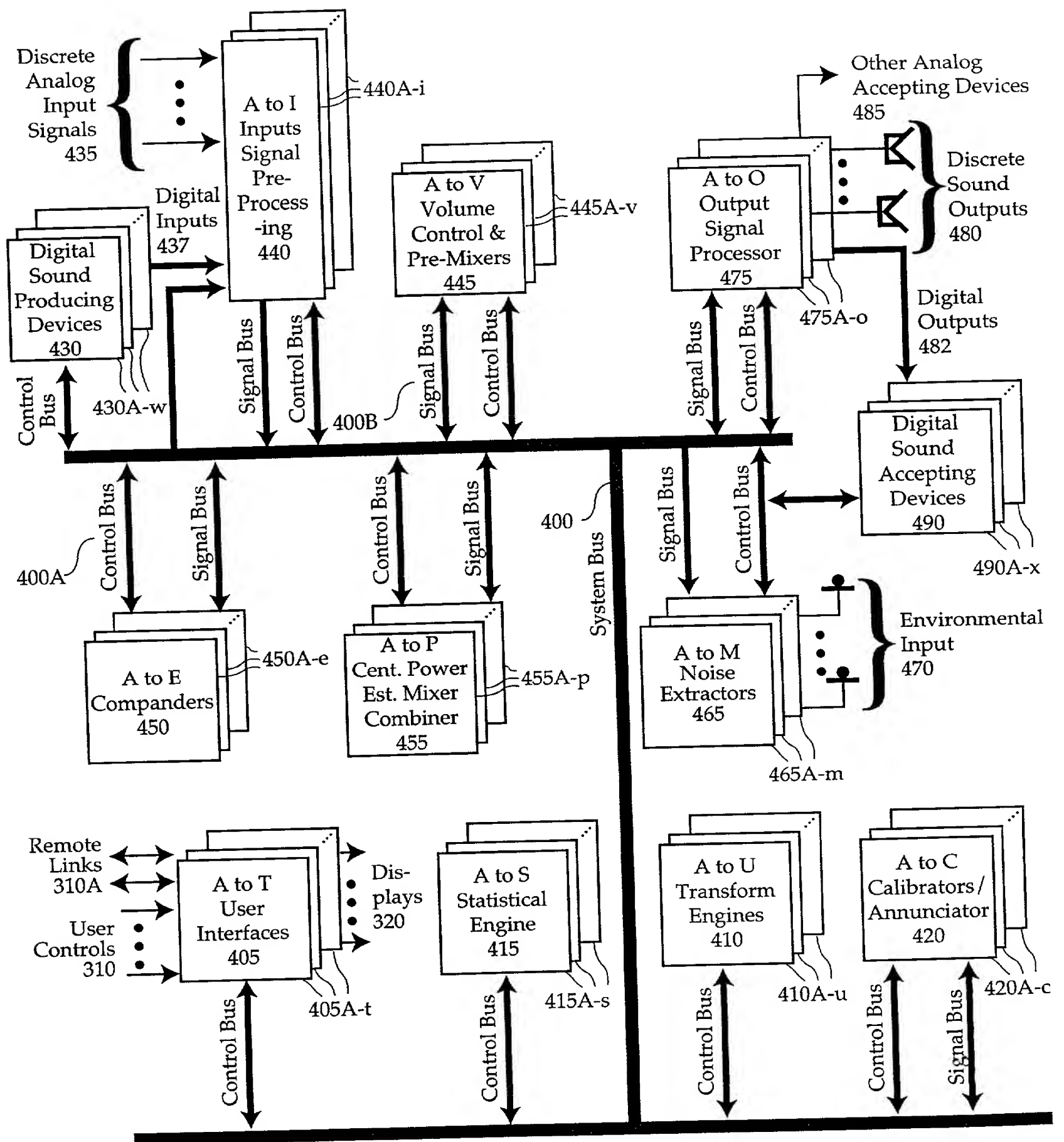


FIG. 4

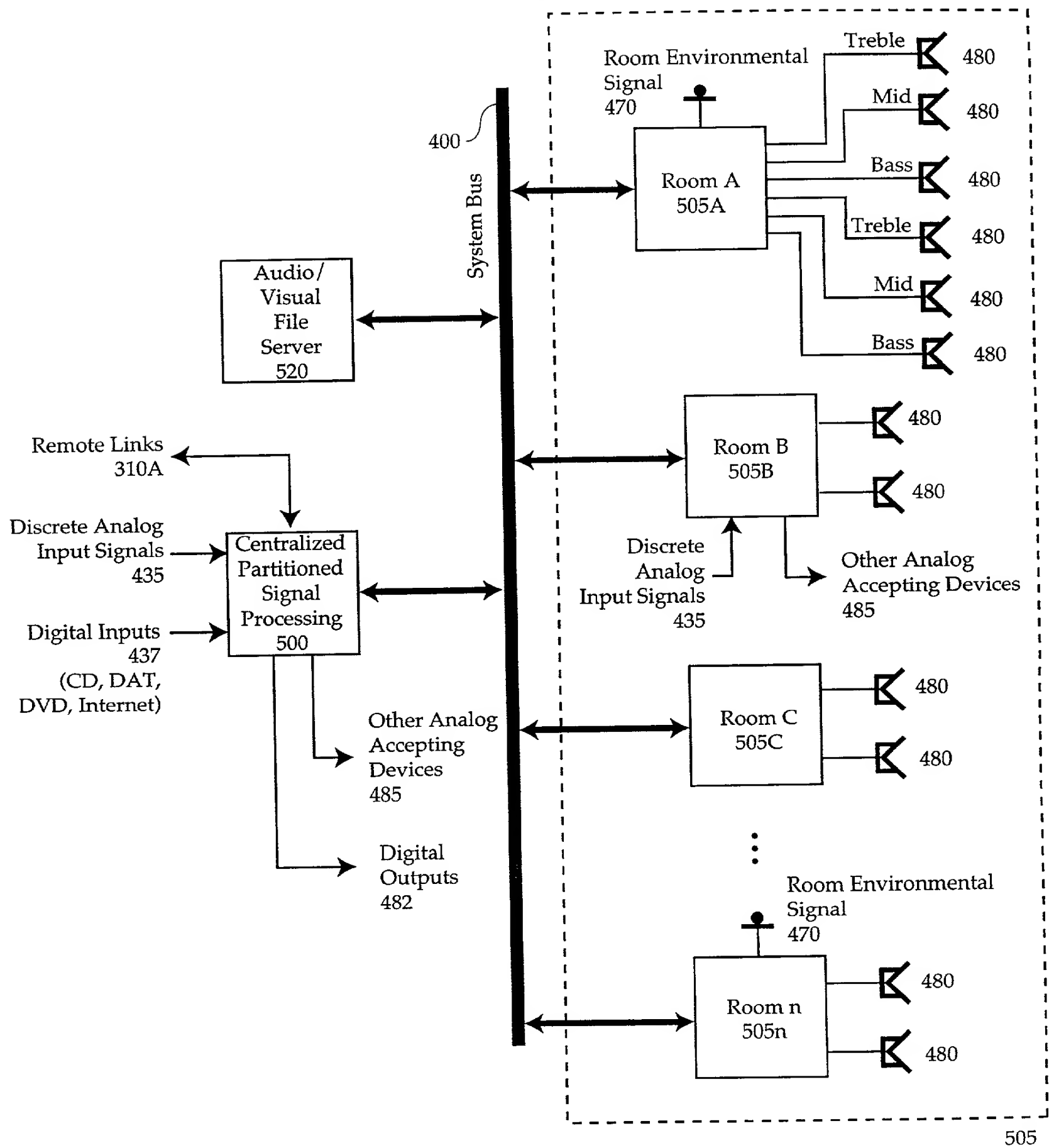


FIG. 5A

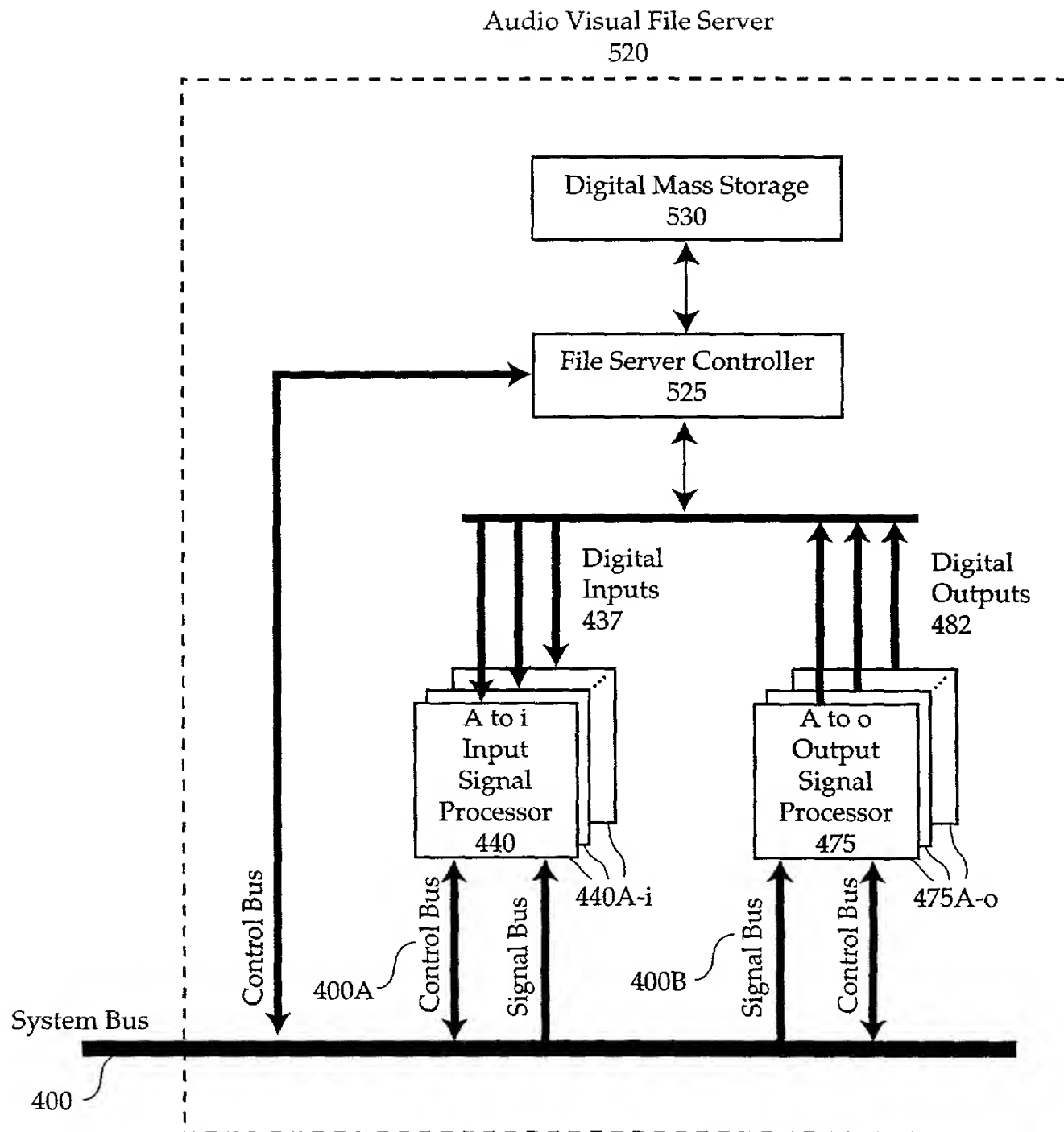


FIG. 5B

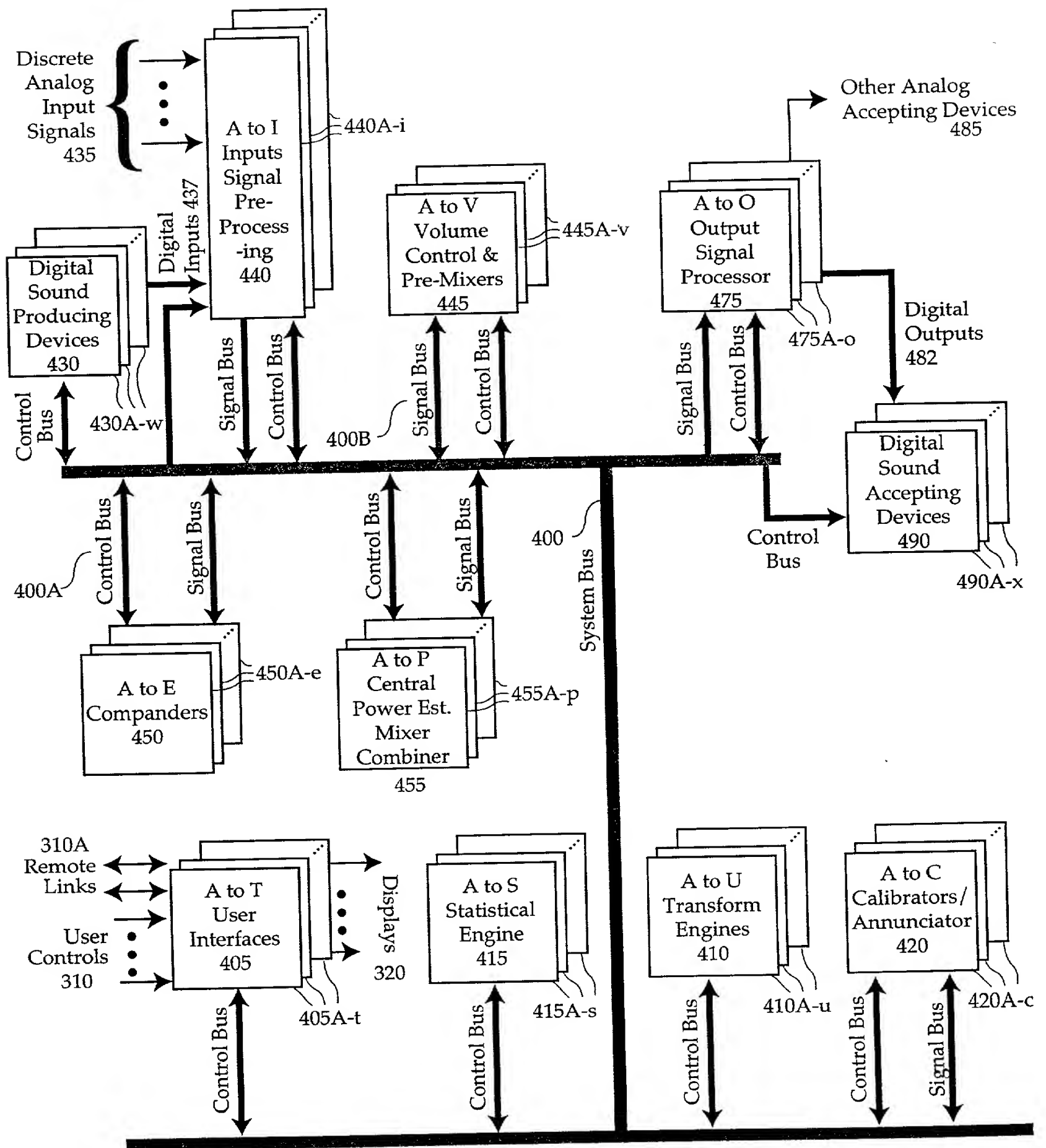


FIG. 5C

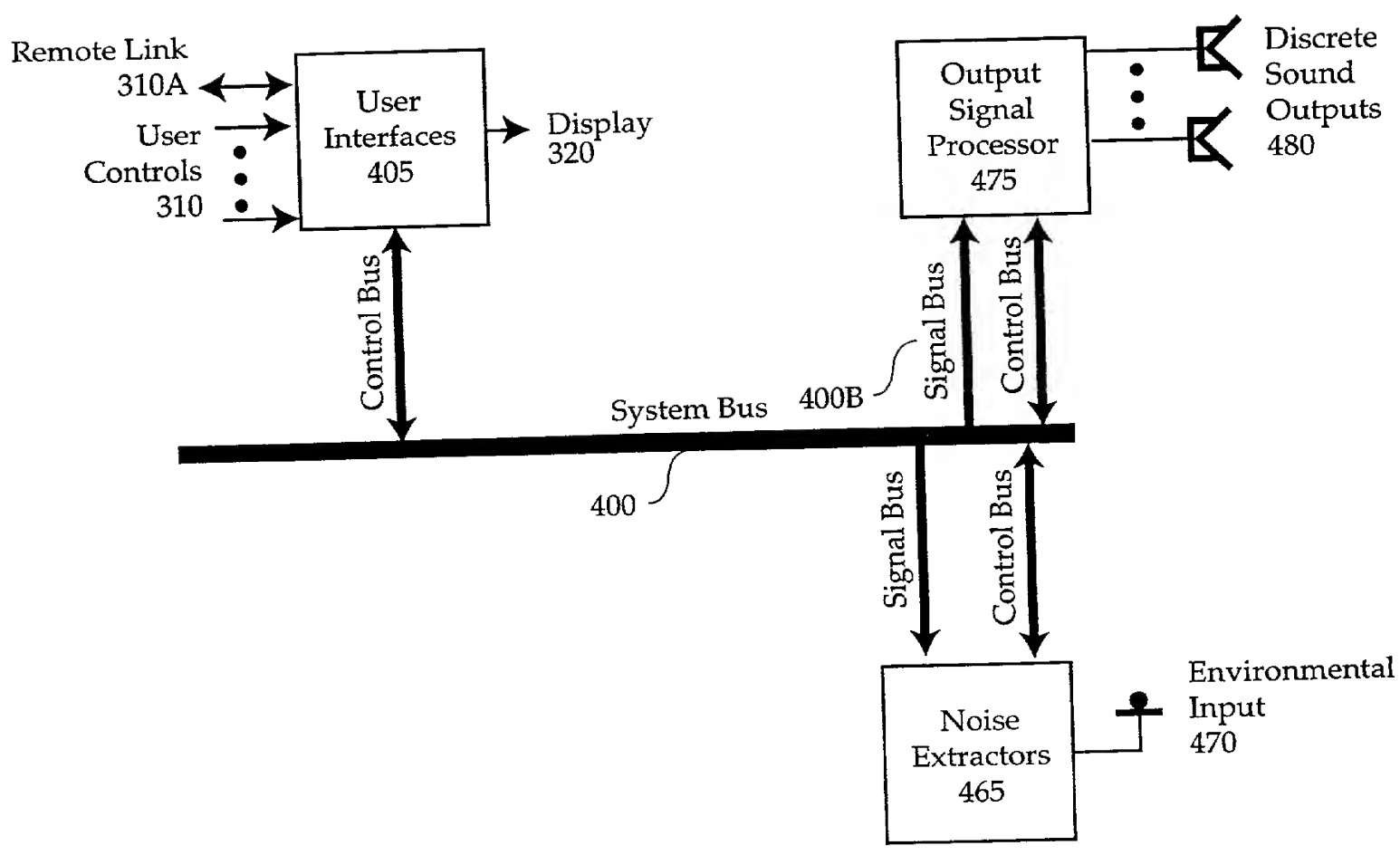


FIG. 5D

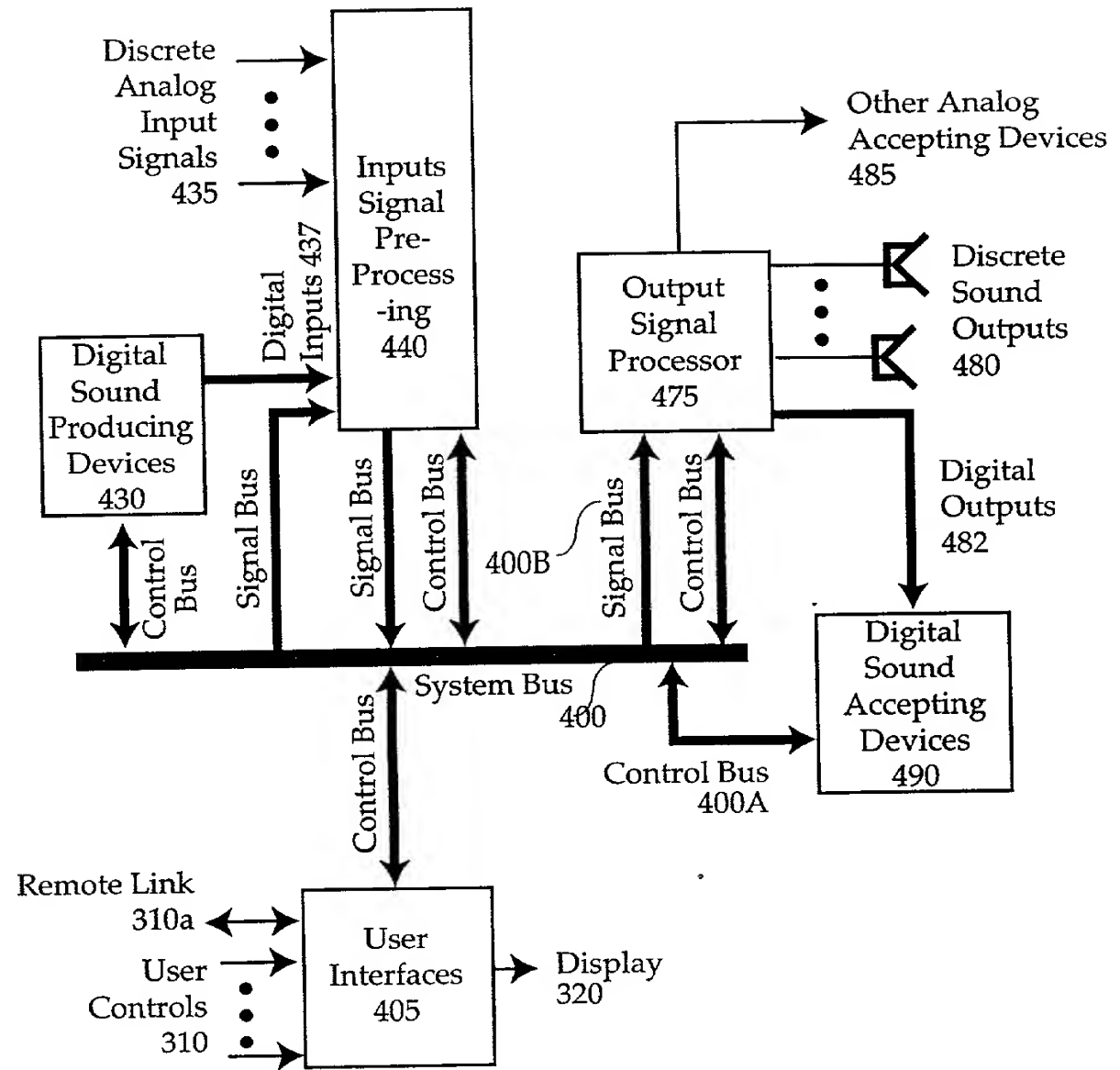


FIG. 5E

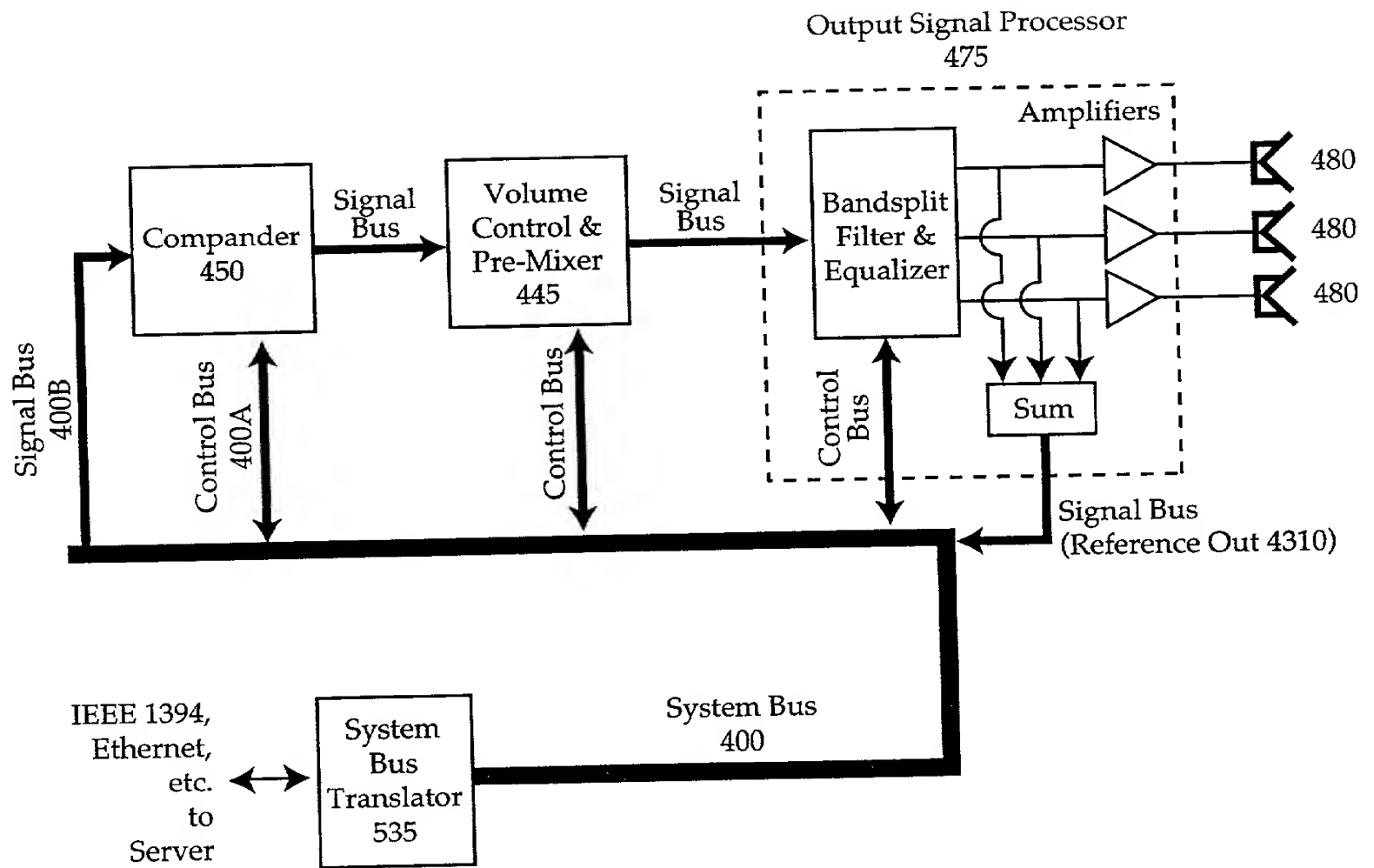


FIG. 5F

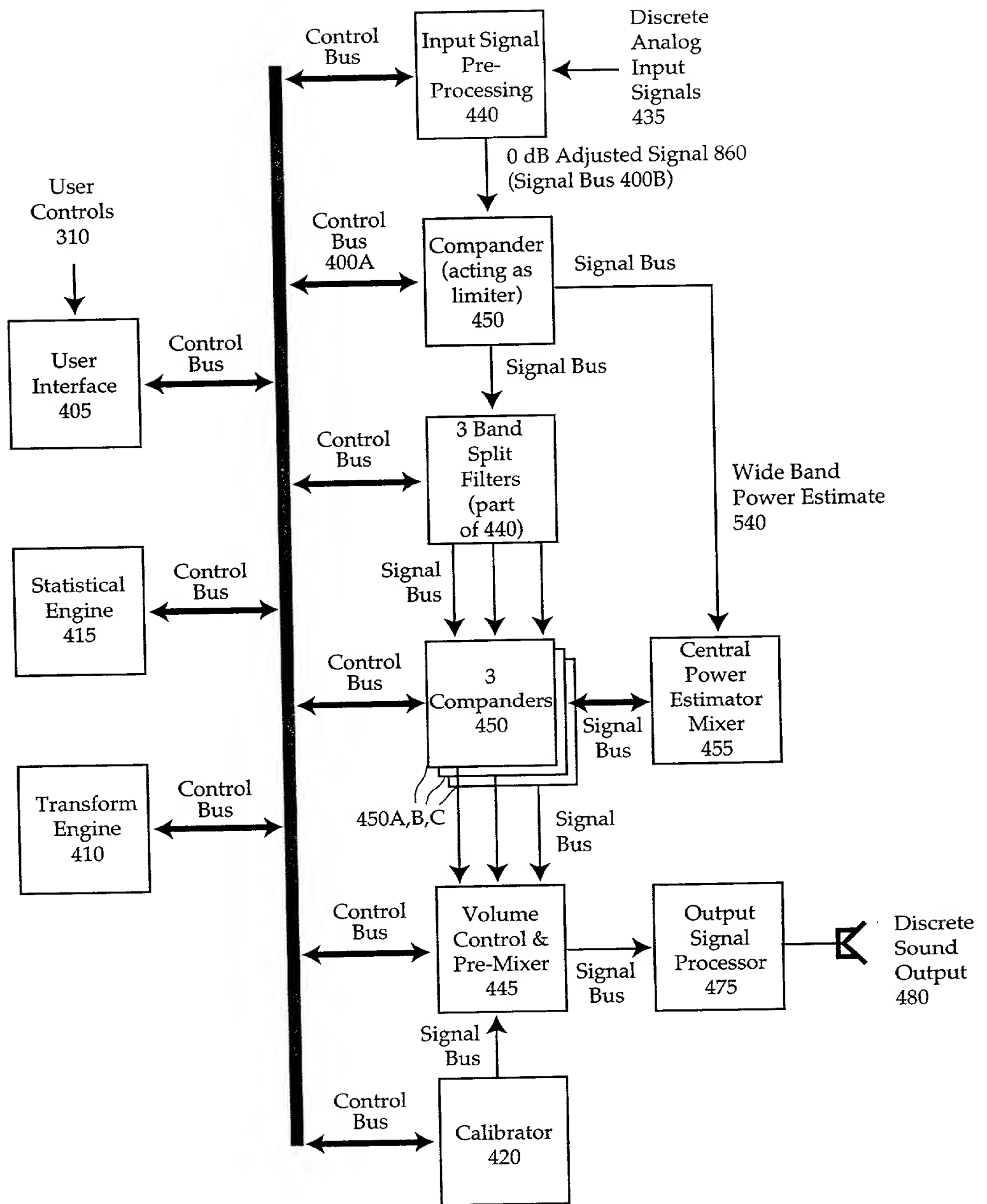


FIG. 5G

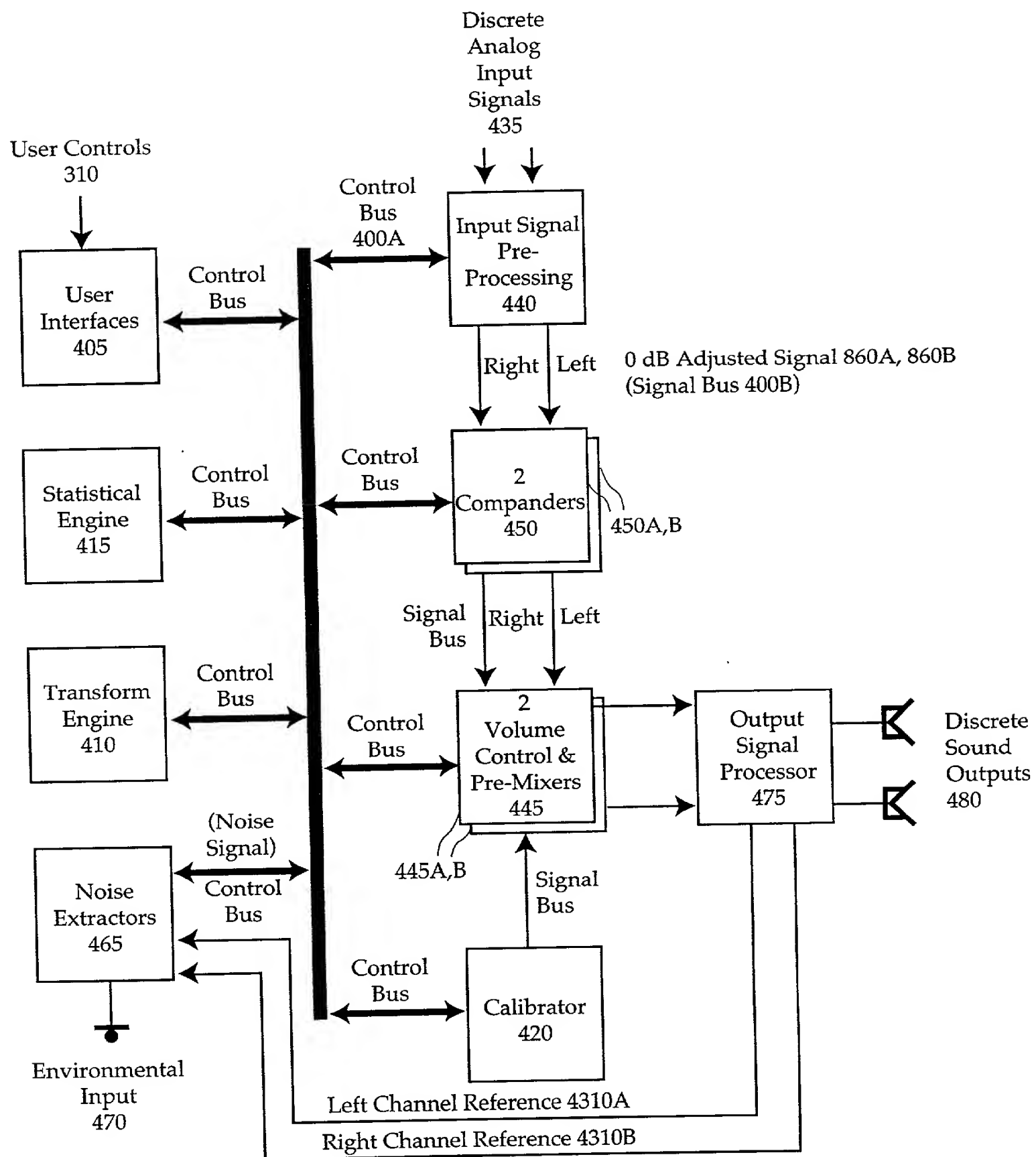


FIG. 5H

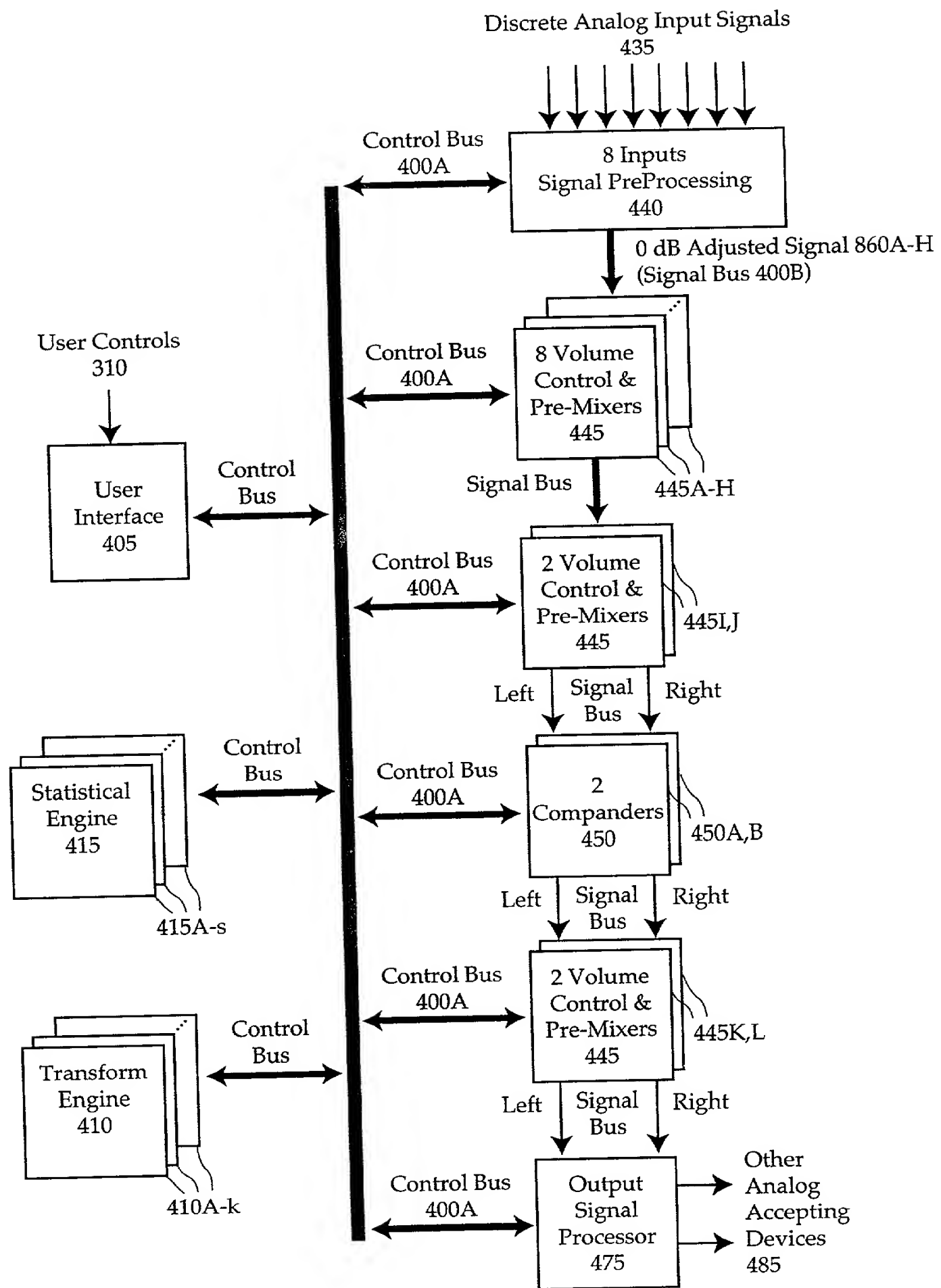


FIG. 5I

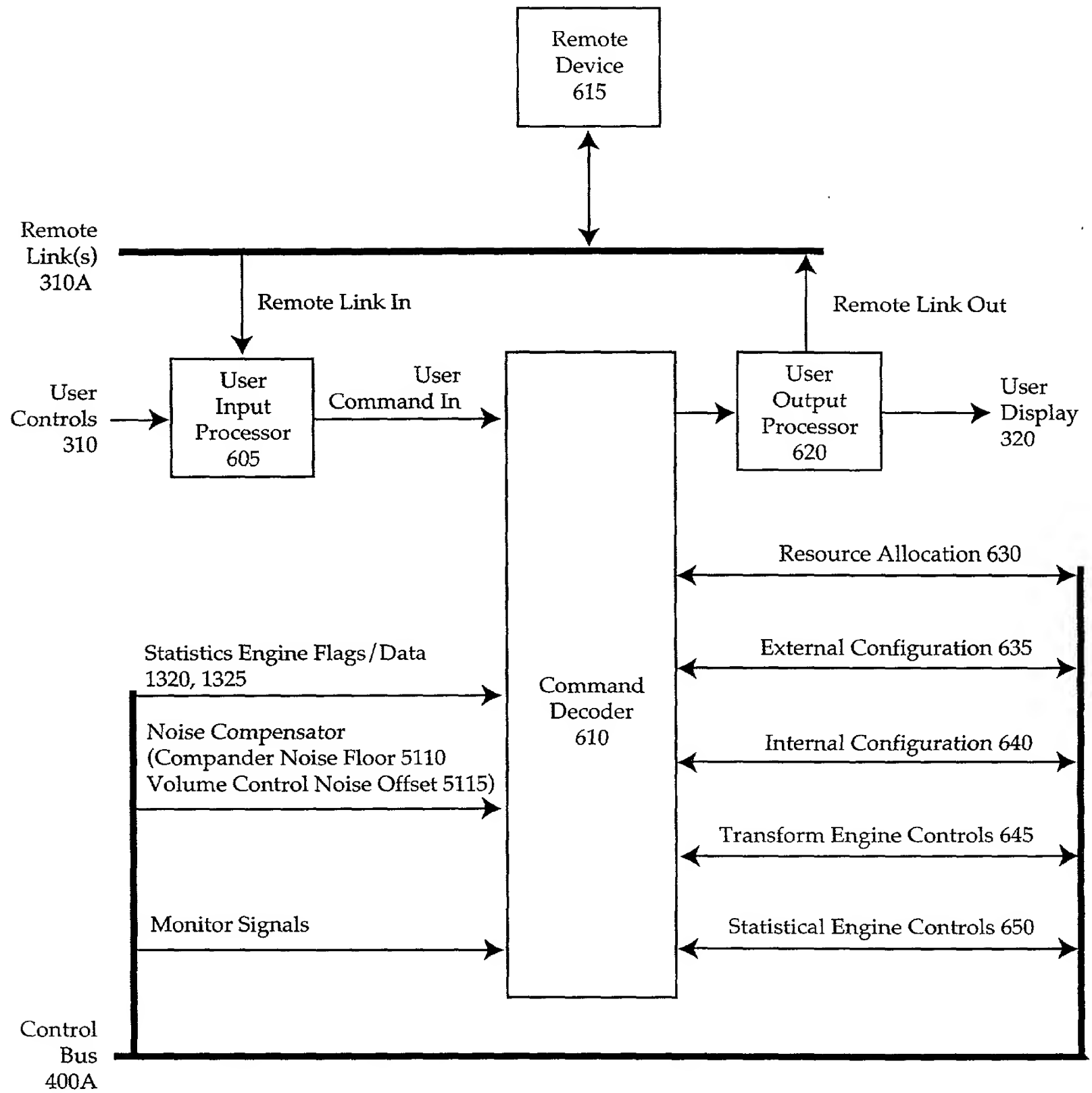


FIG. 6A

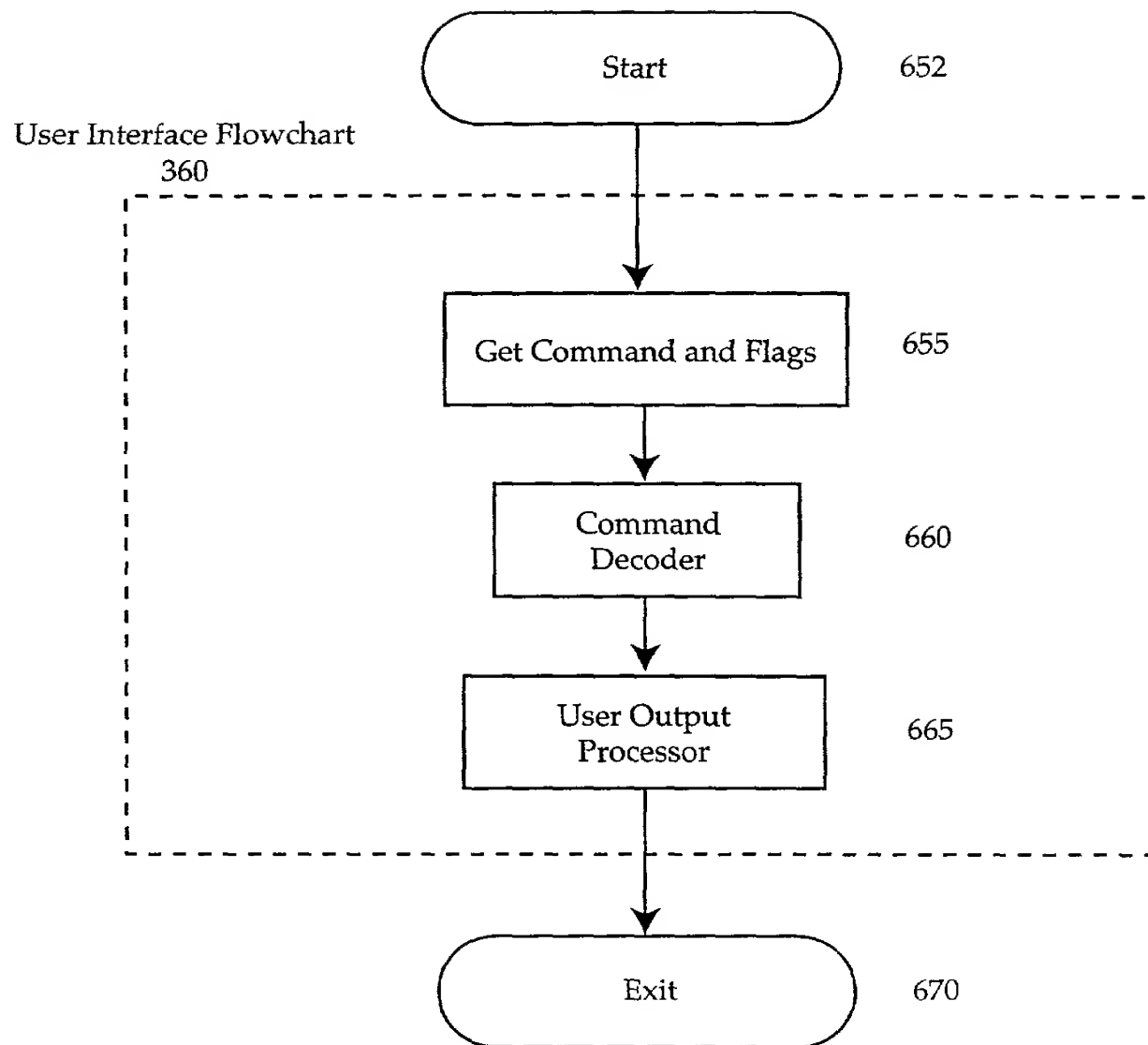


FIG. 6B

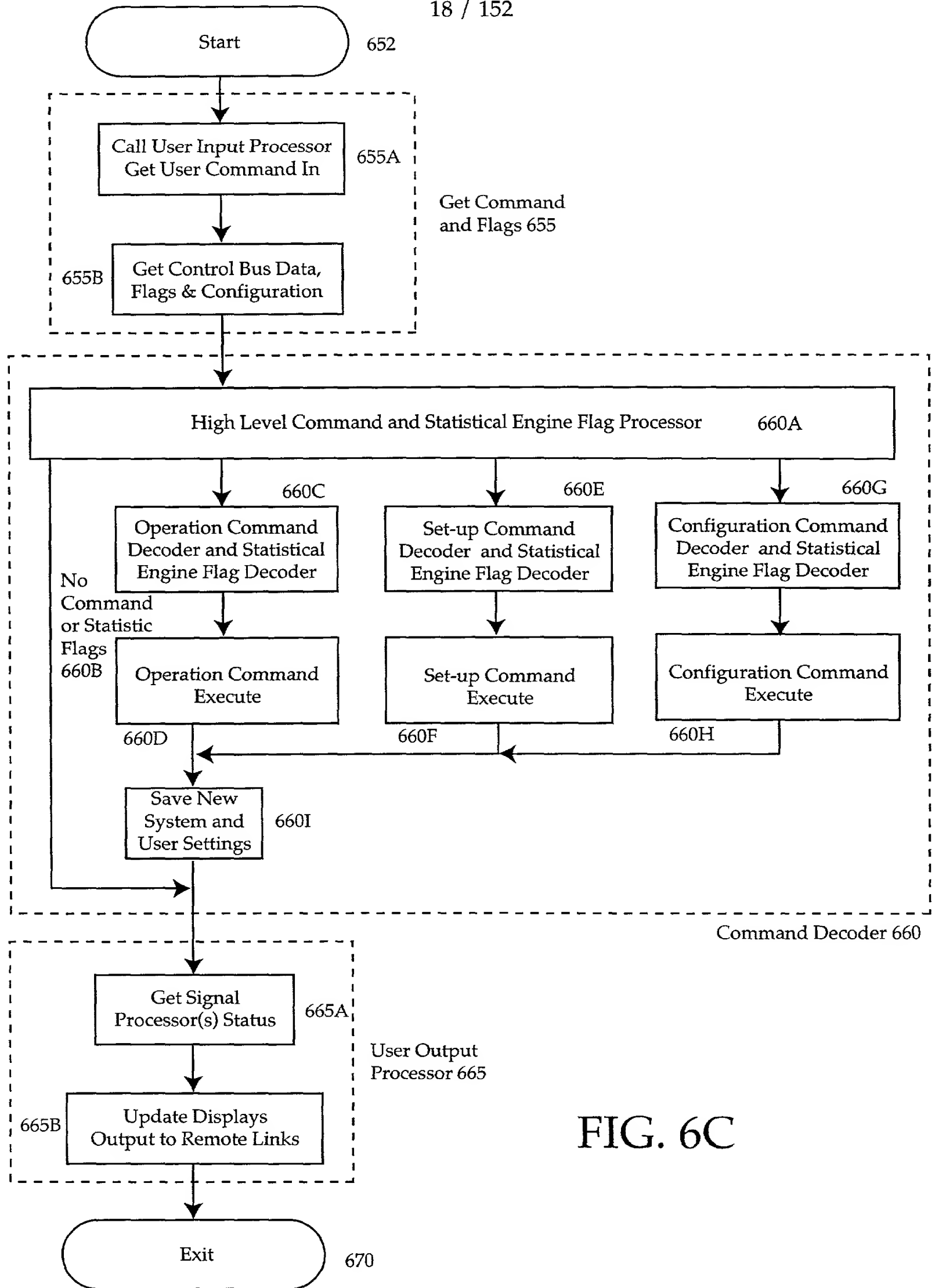


FIG. 6C

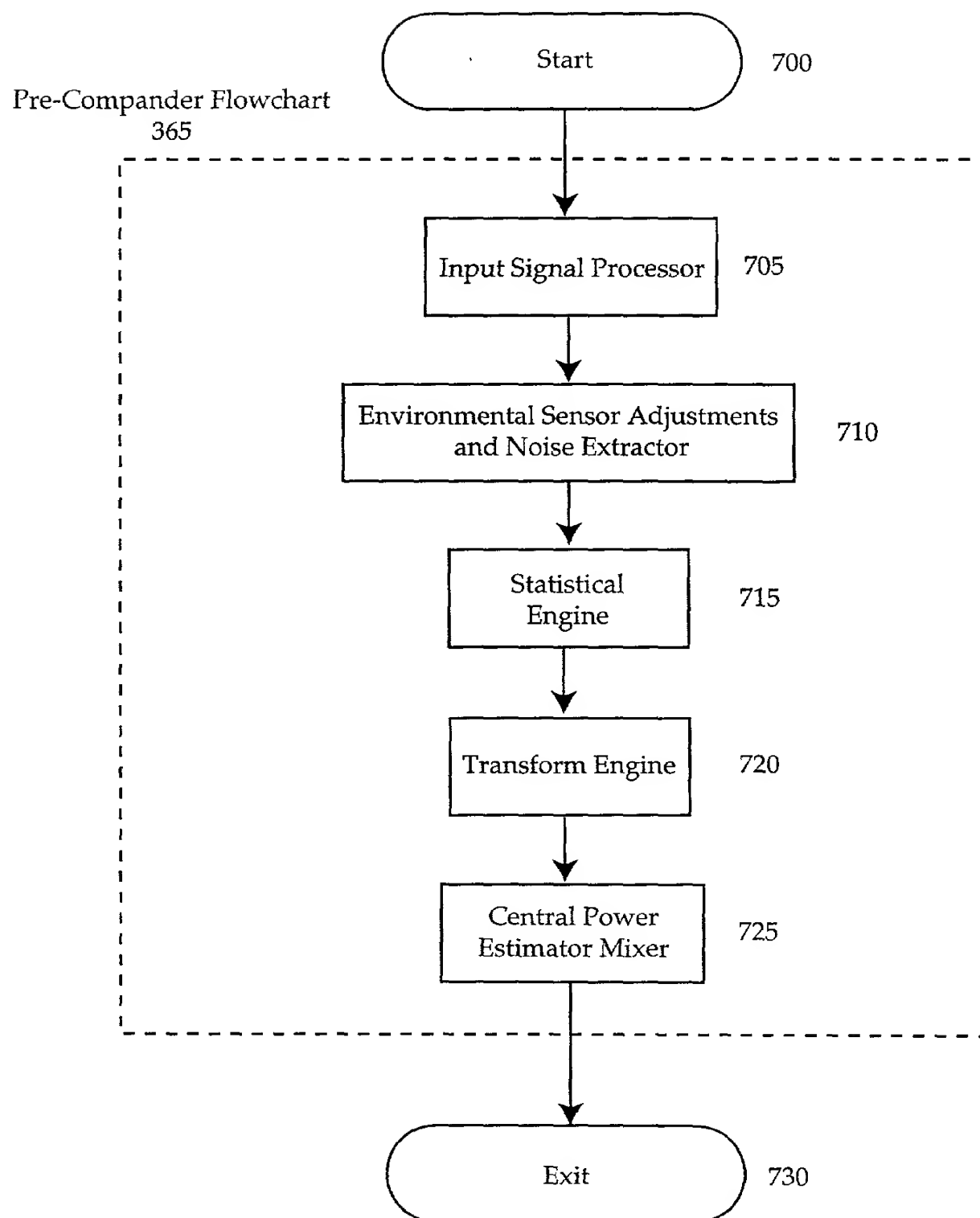


FIG. 7

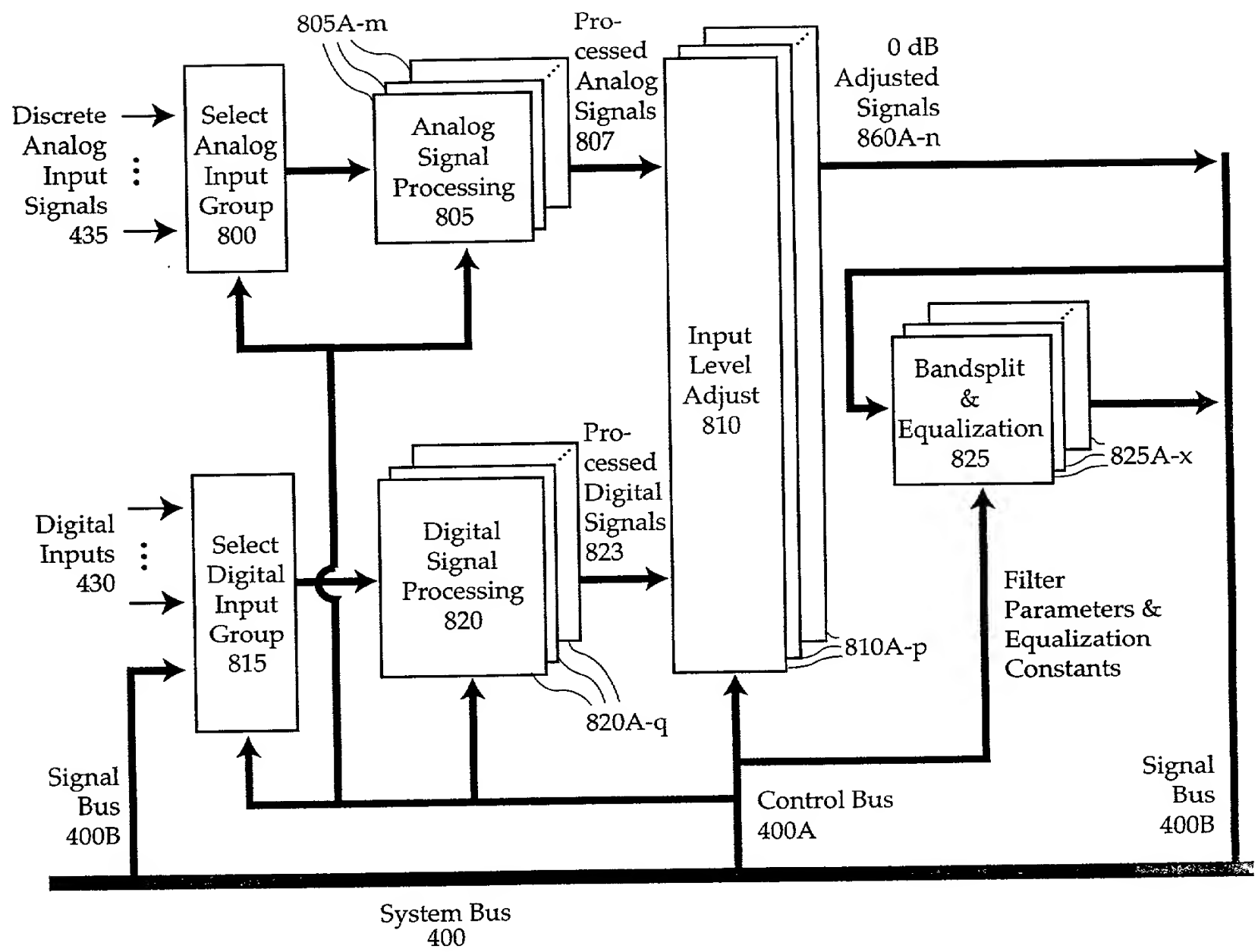


FIG. 8A

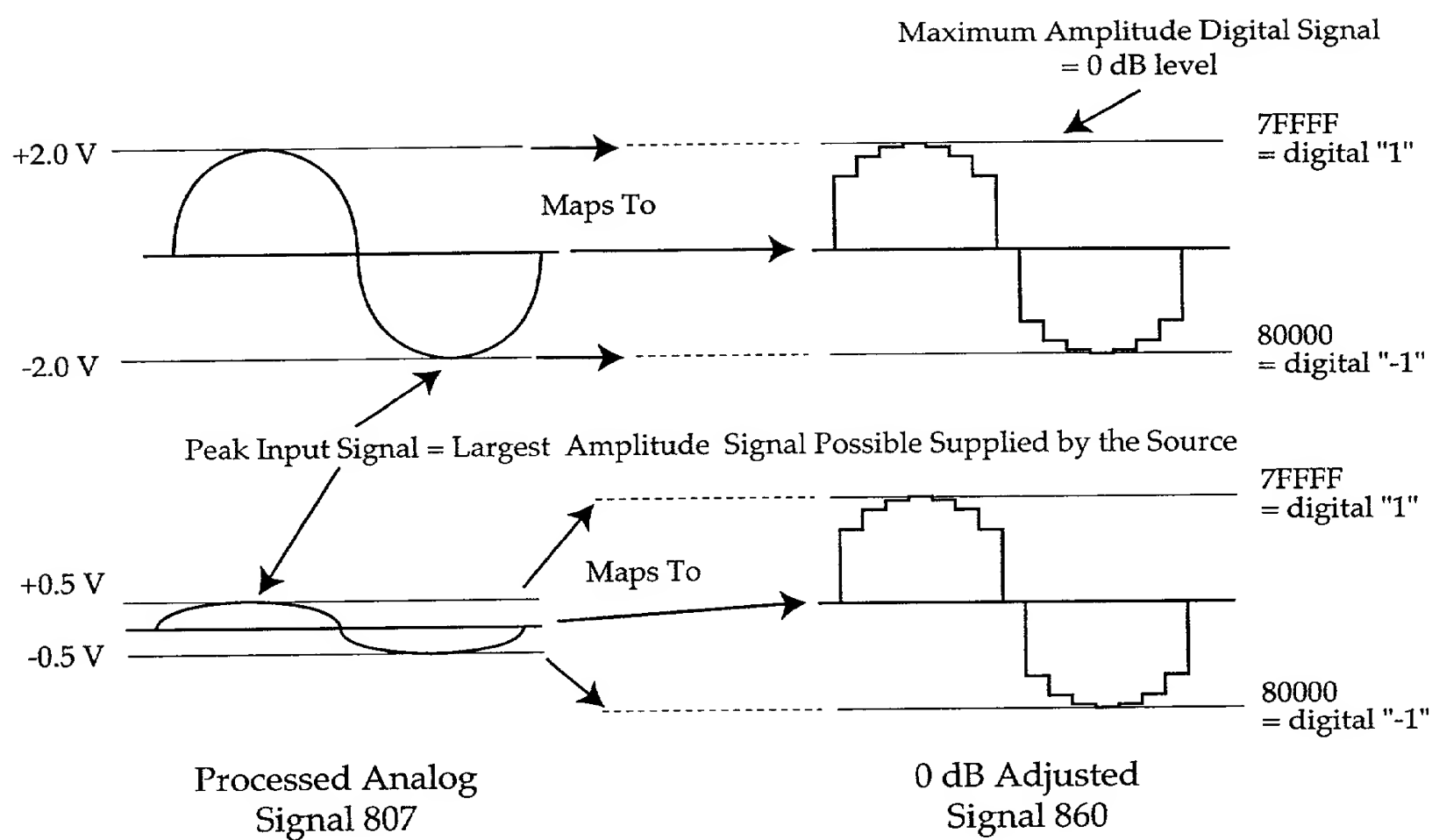


FIG. 8B

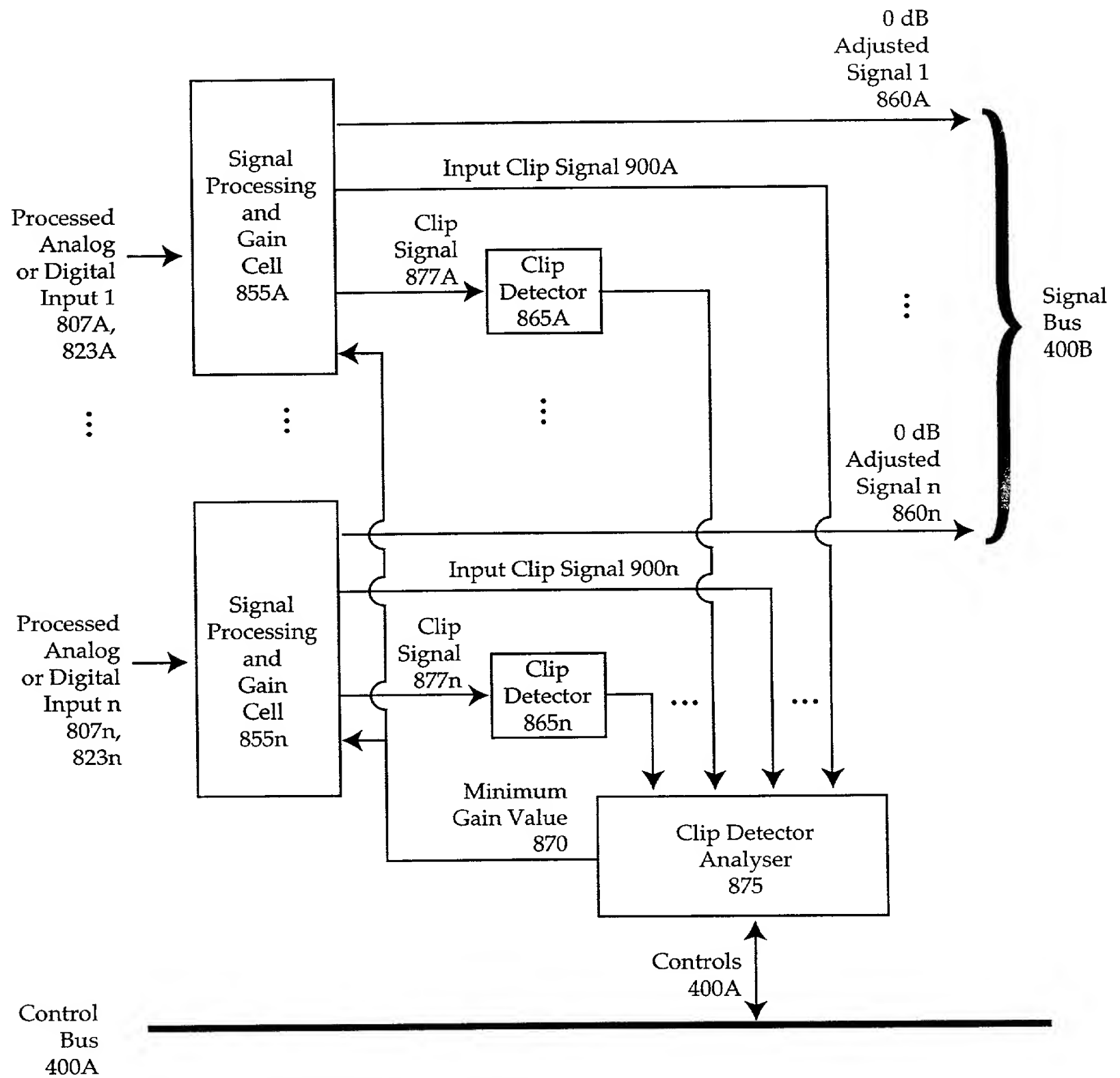


FIG. 8C

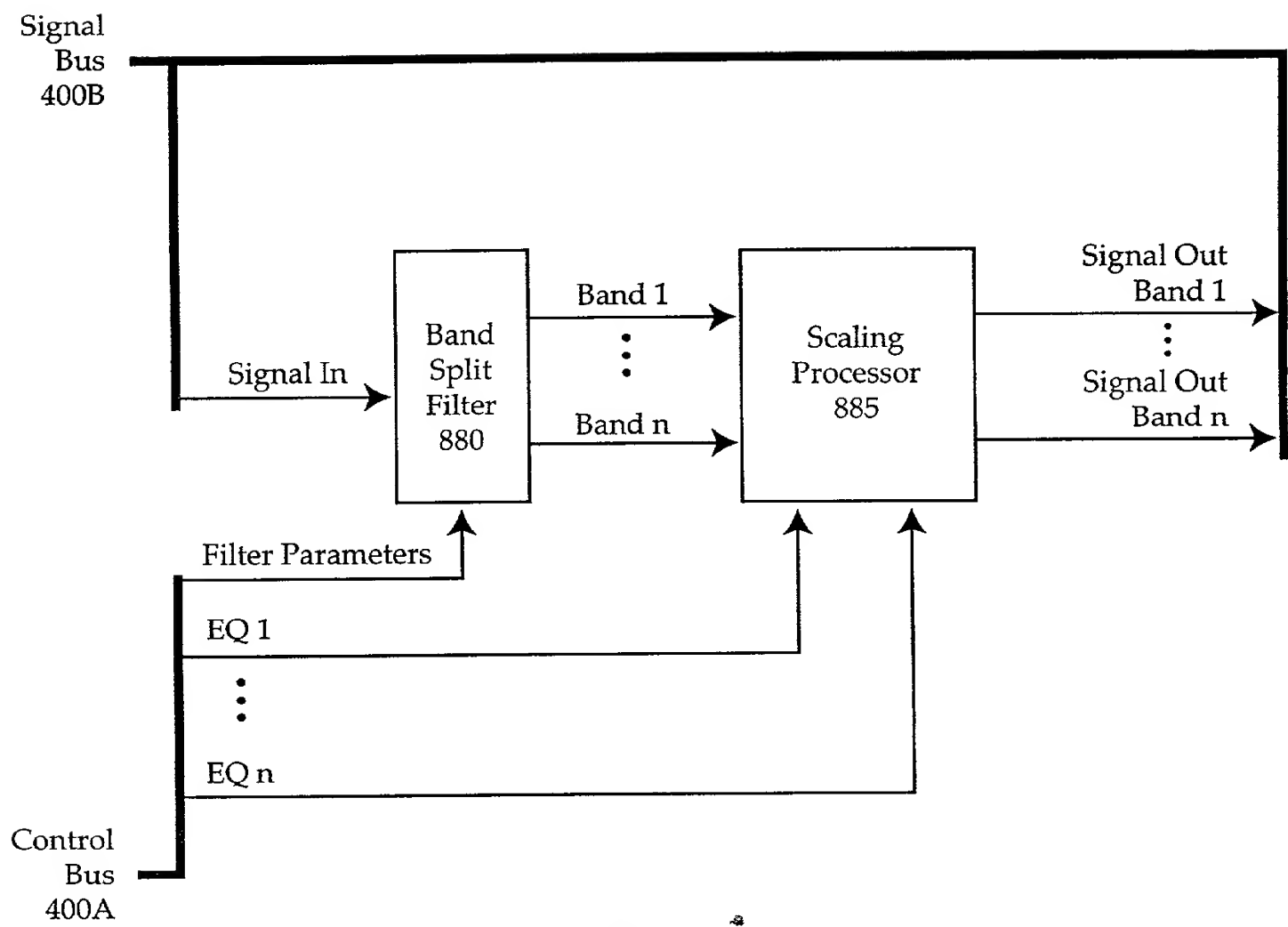


FIG. 8D

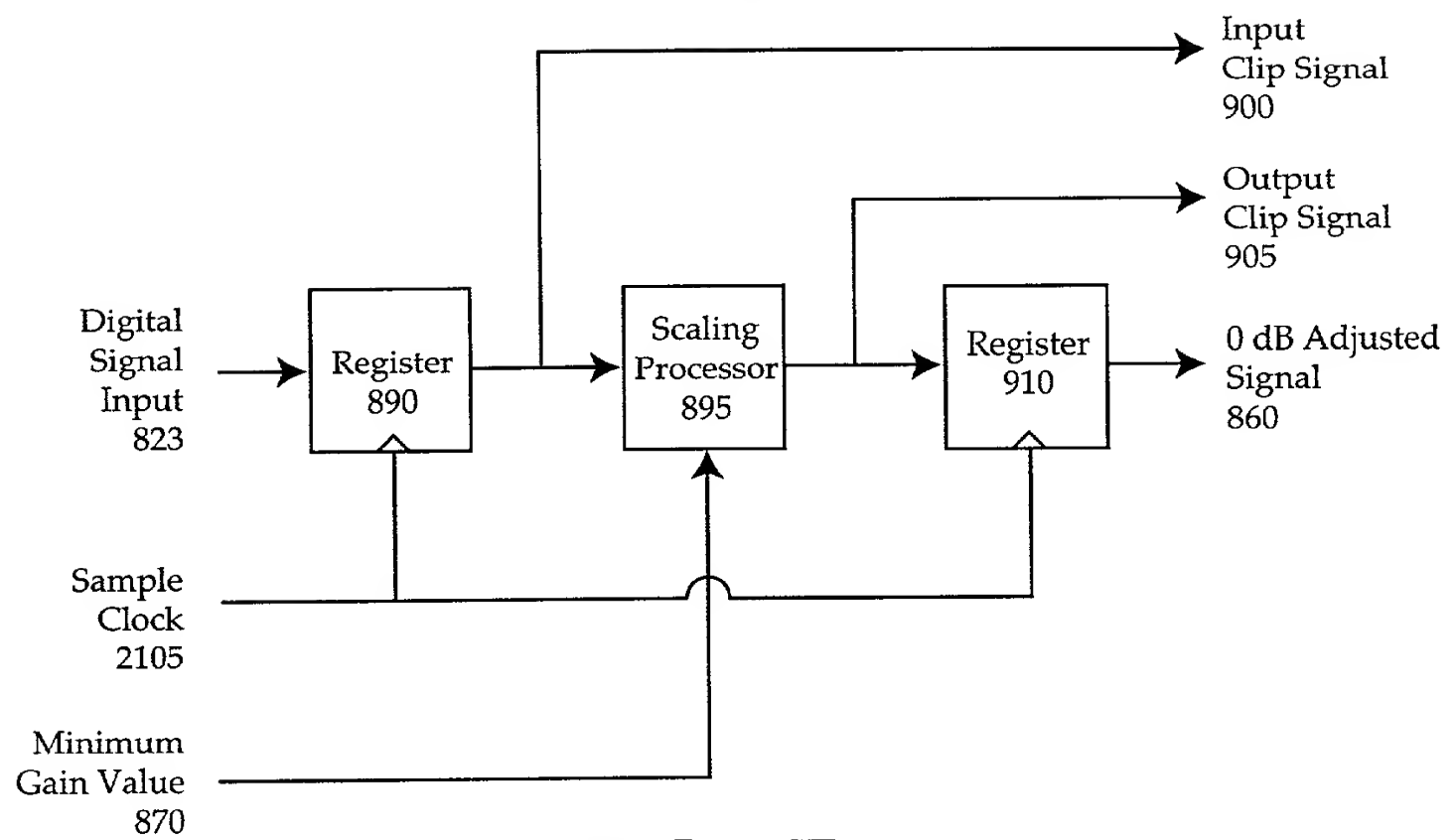


FIG. 8E

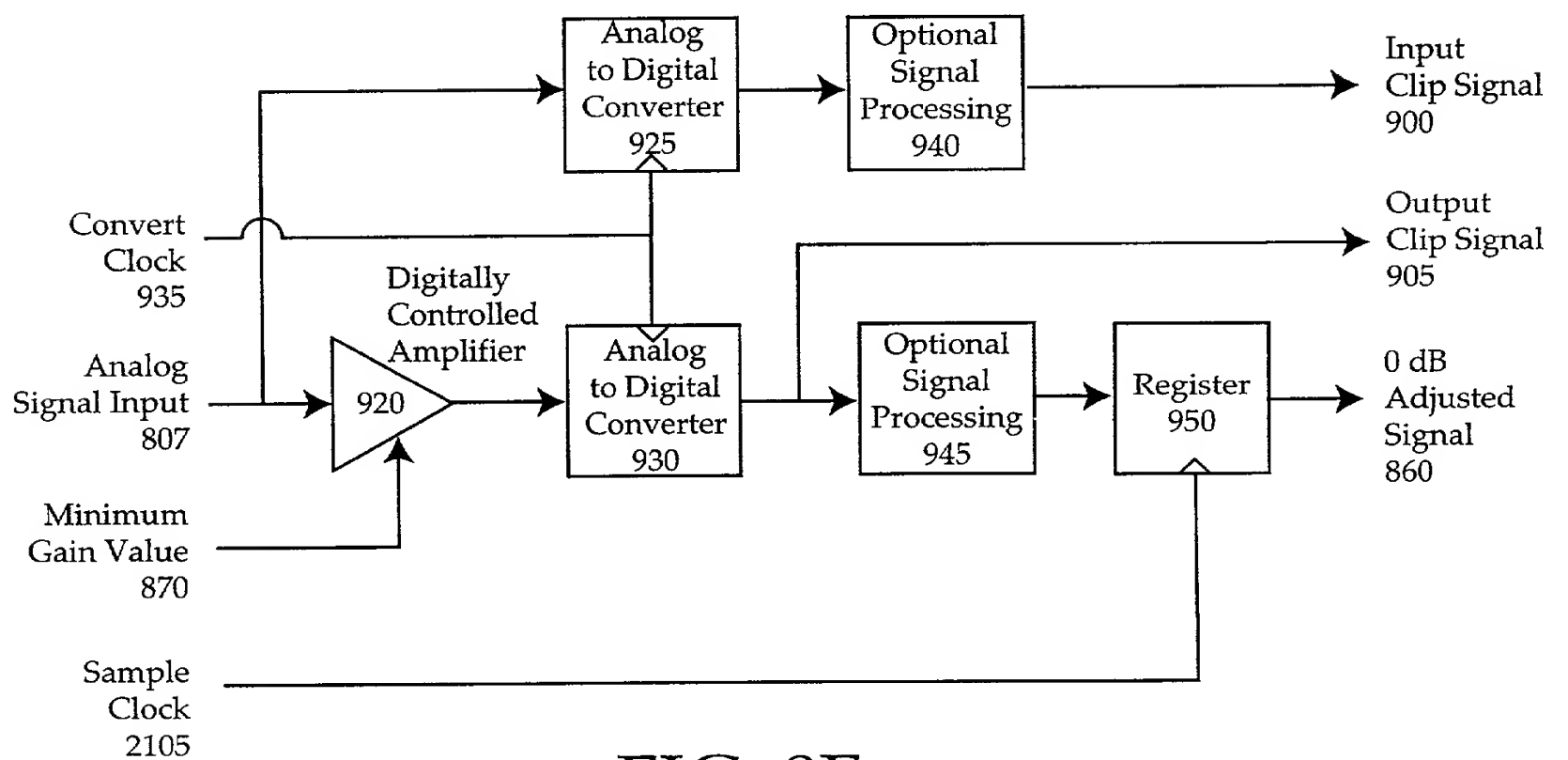


FIG. 8F

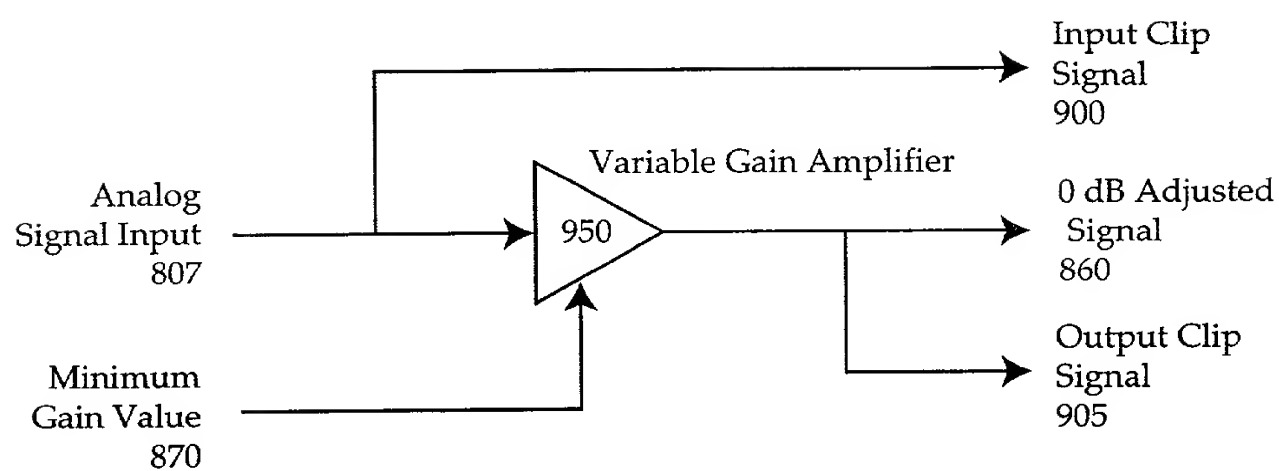


FIG. 8G

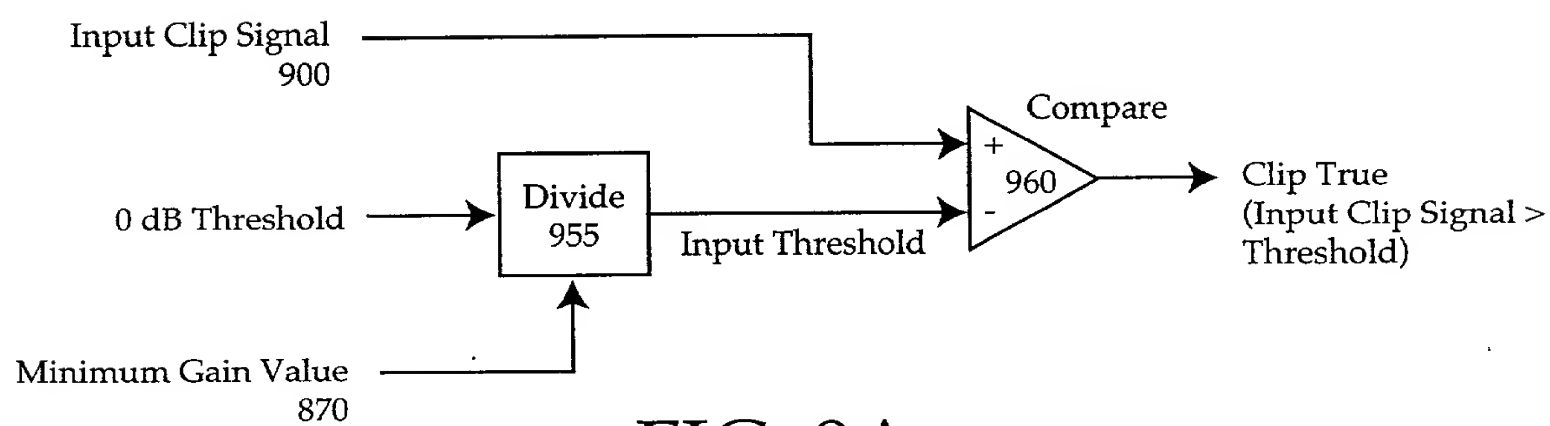


FIG. 9A

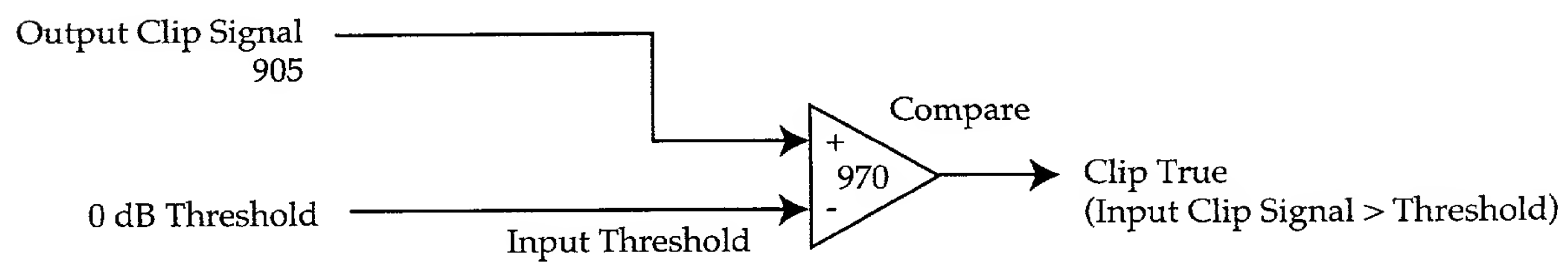


FIG. 9B

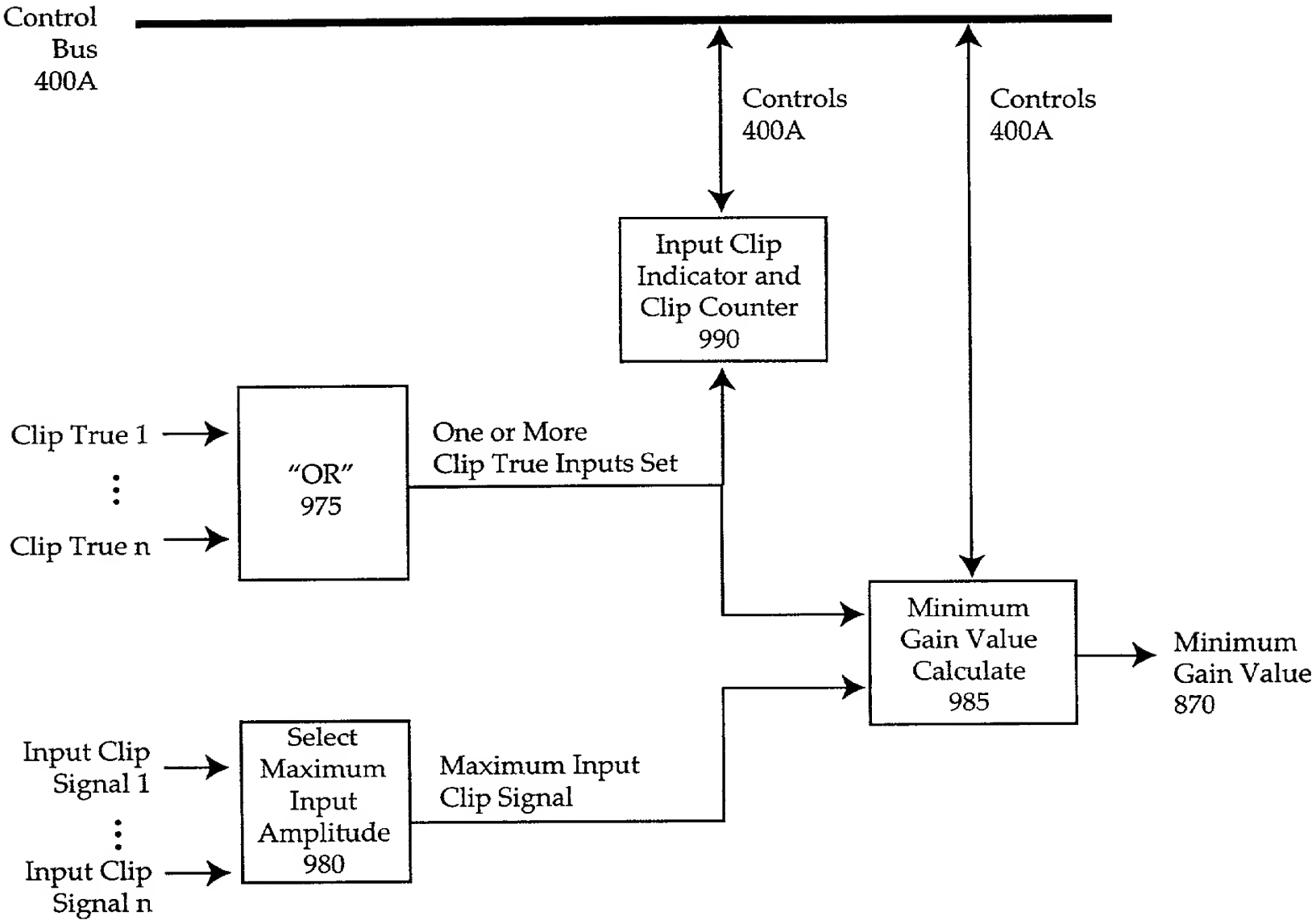


FIG. 9C

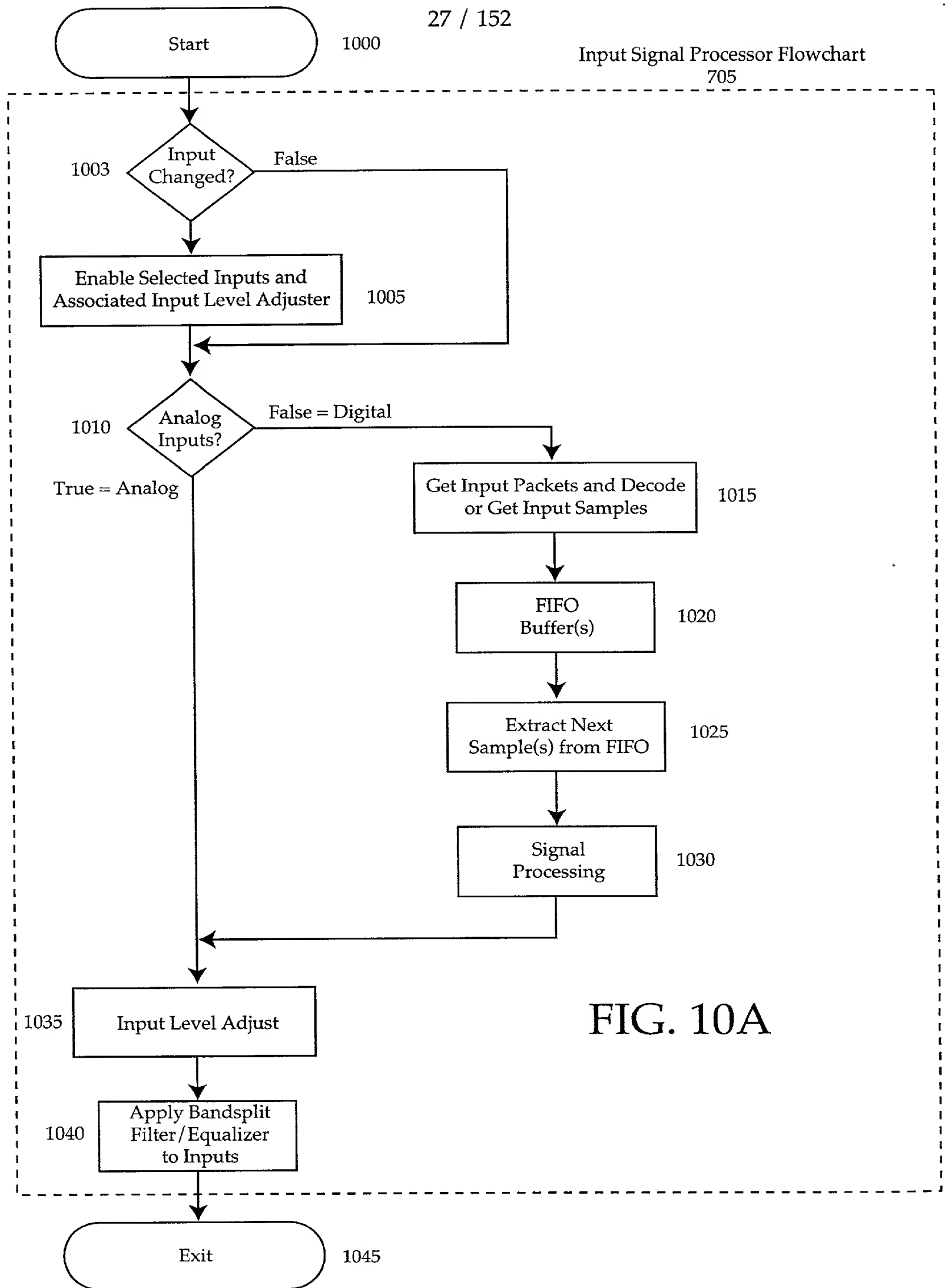
Input Signal Processor Flowchart
705

FIG. 10A

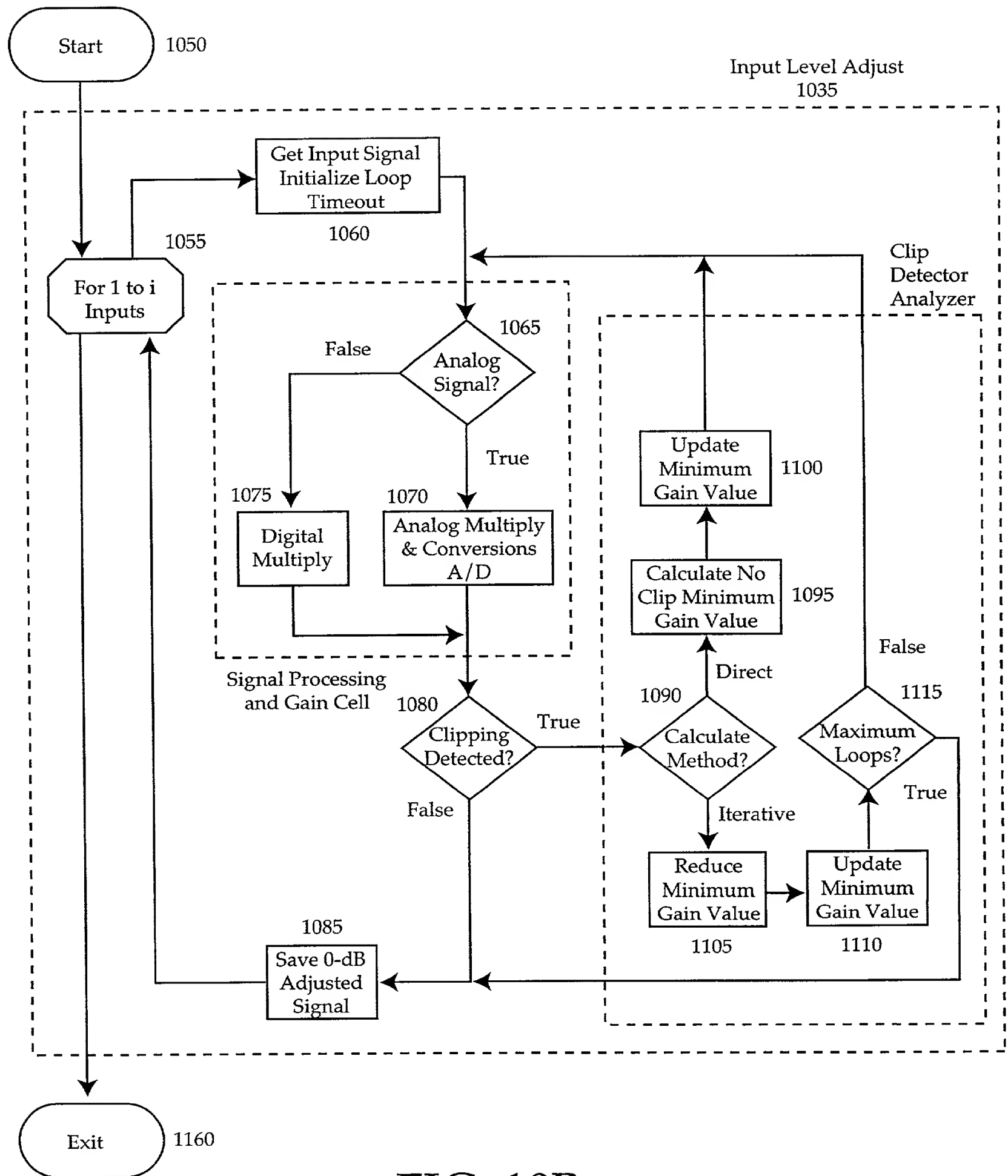


FIG. 10B

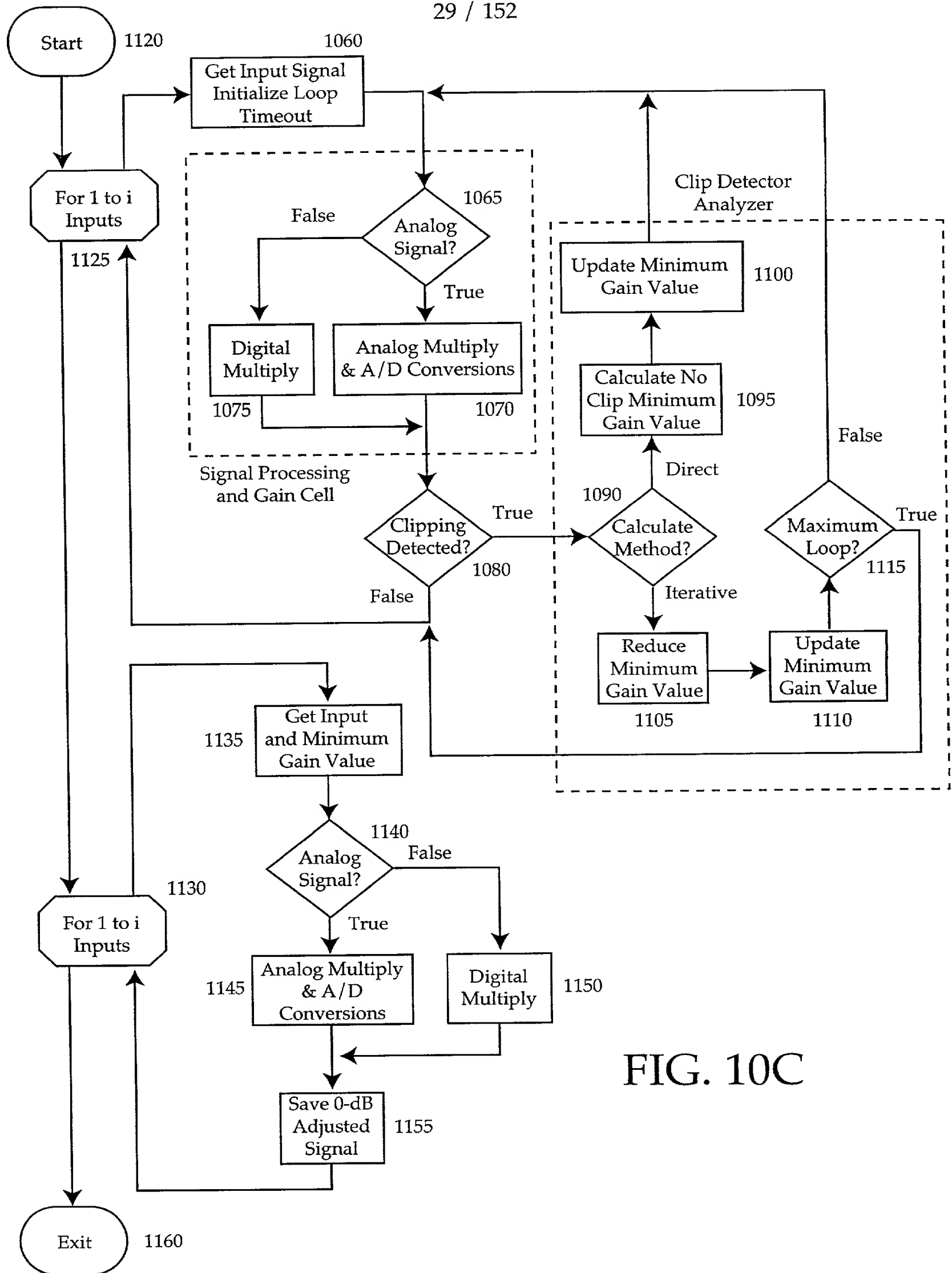


FIG. 10C

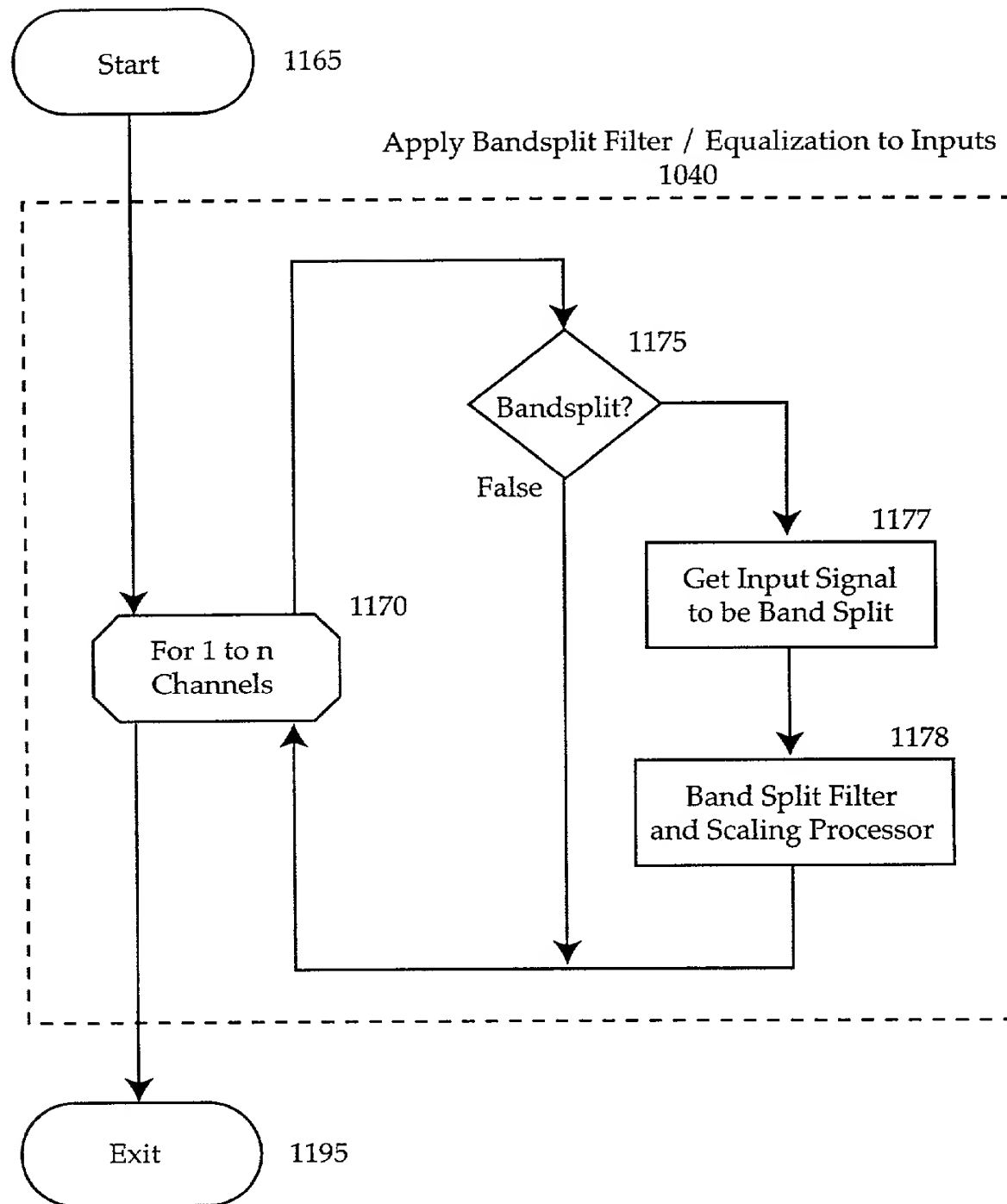


FIG. 10D

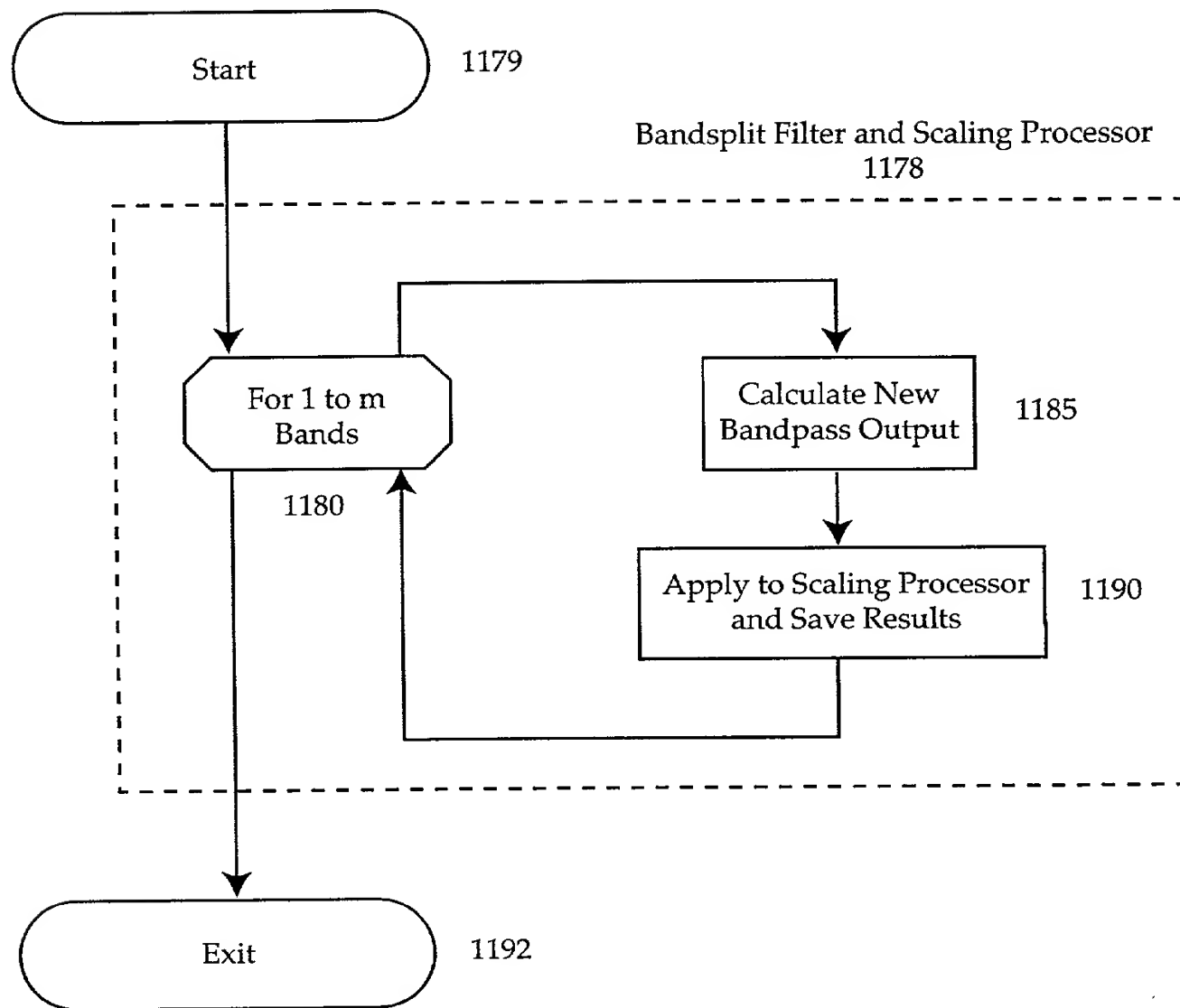


FIG. 10E

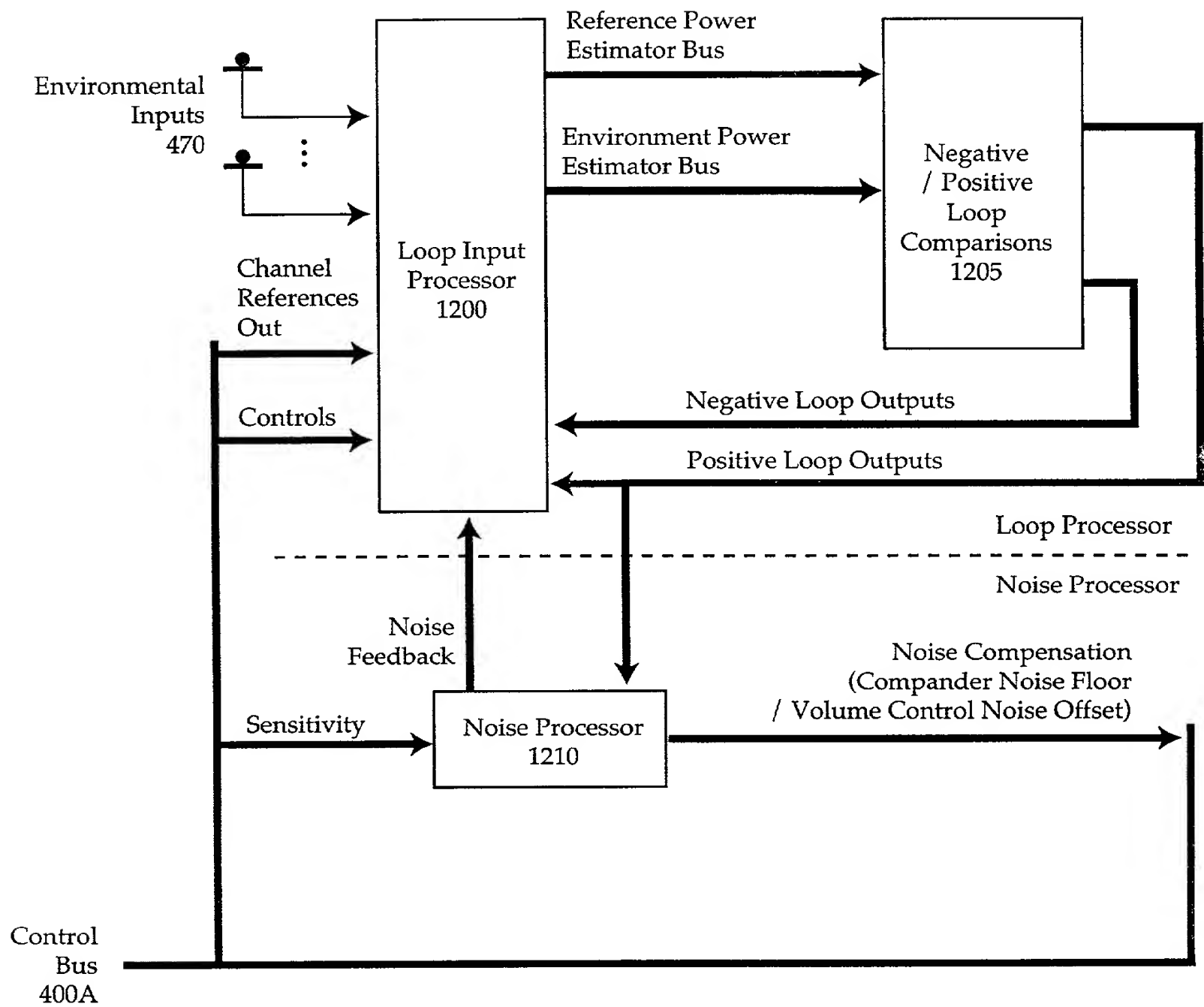


FIG. 11

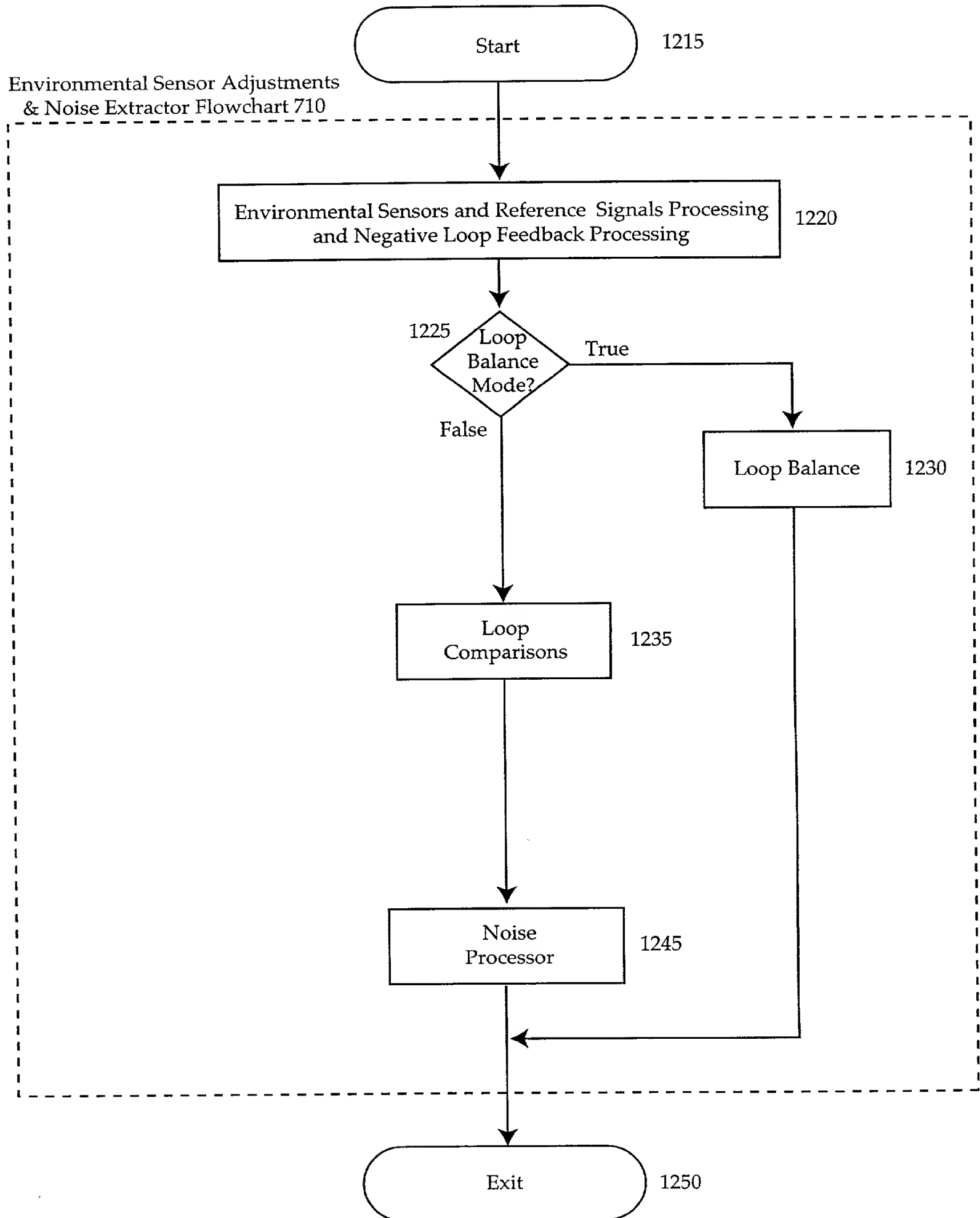
Environmental Sensor Adjustments
& Noise Extractor Flowchart 710

FIG. 12

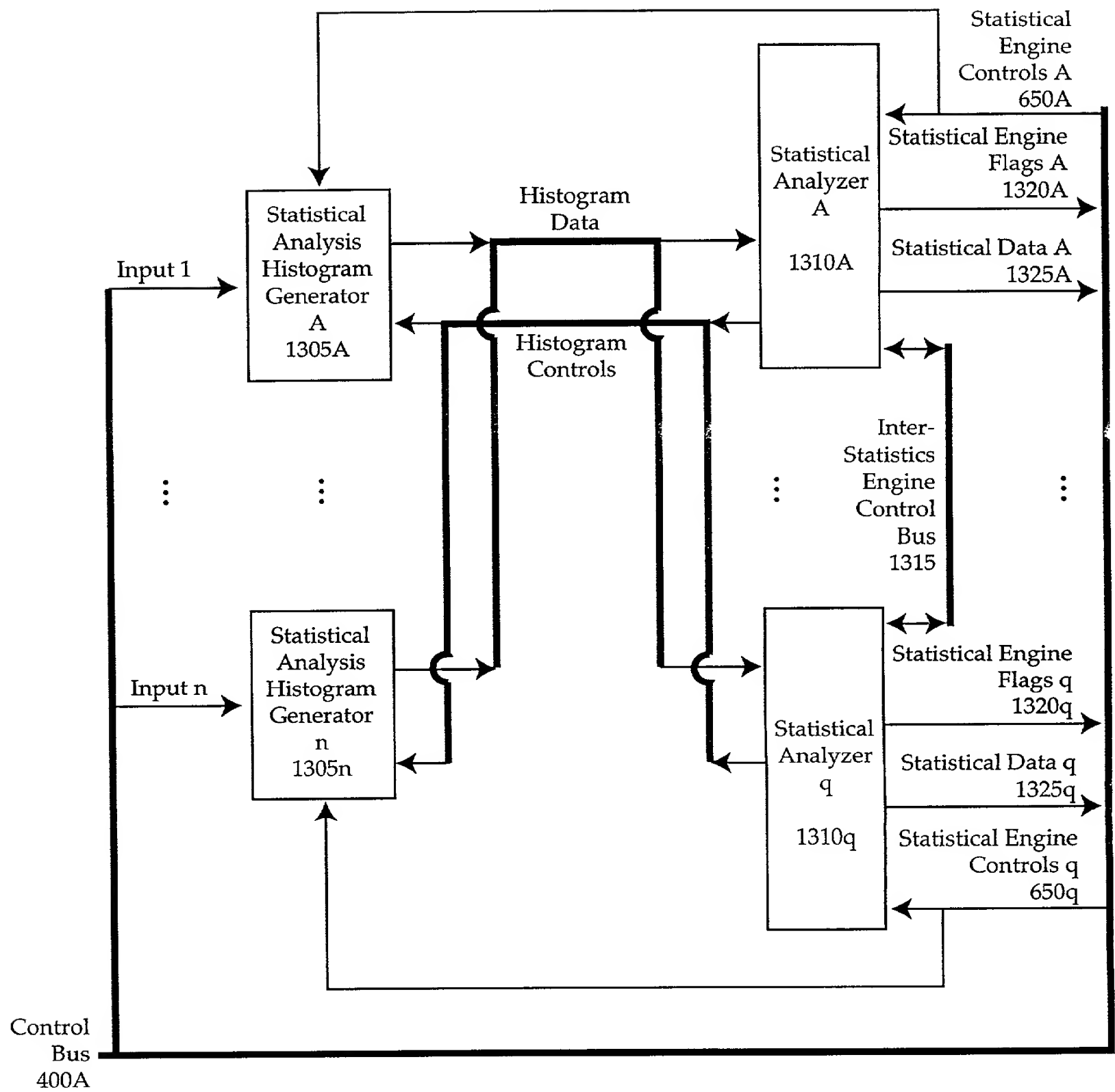


FIG. 13

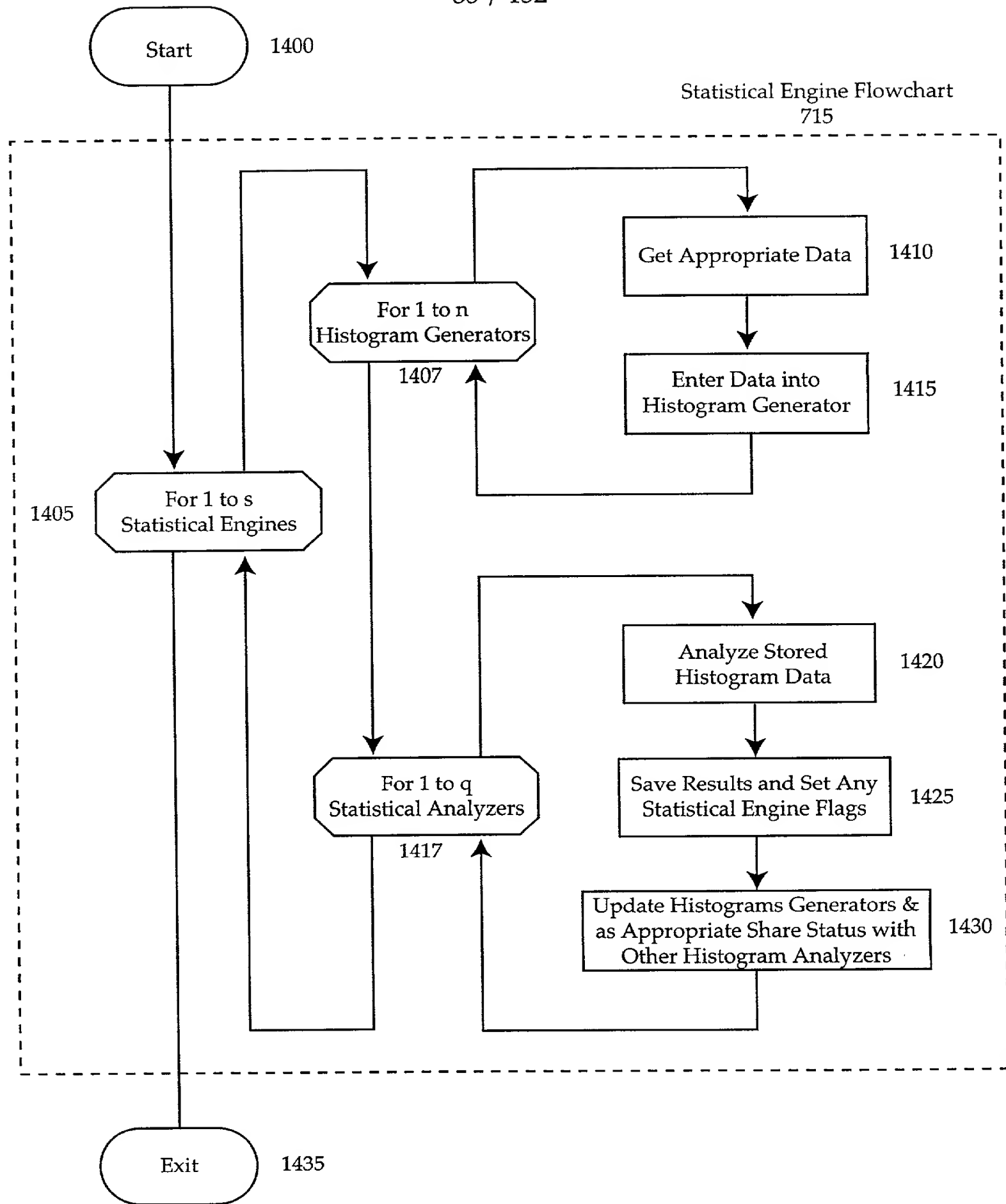


FIG. 14

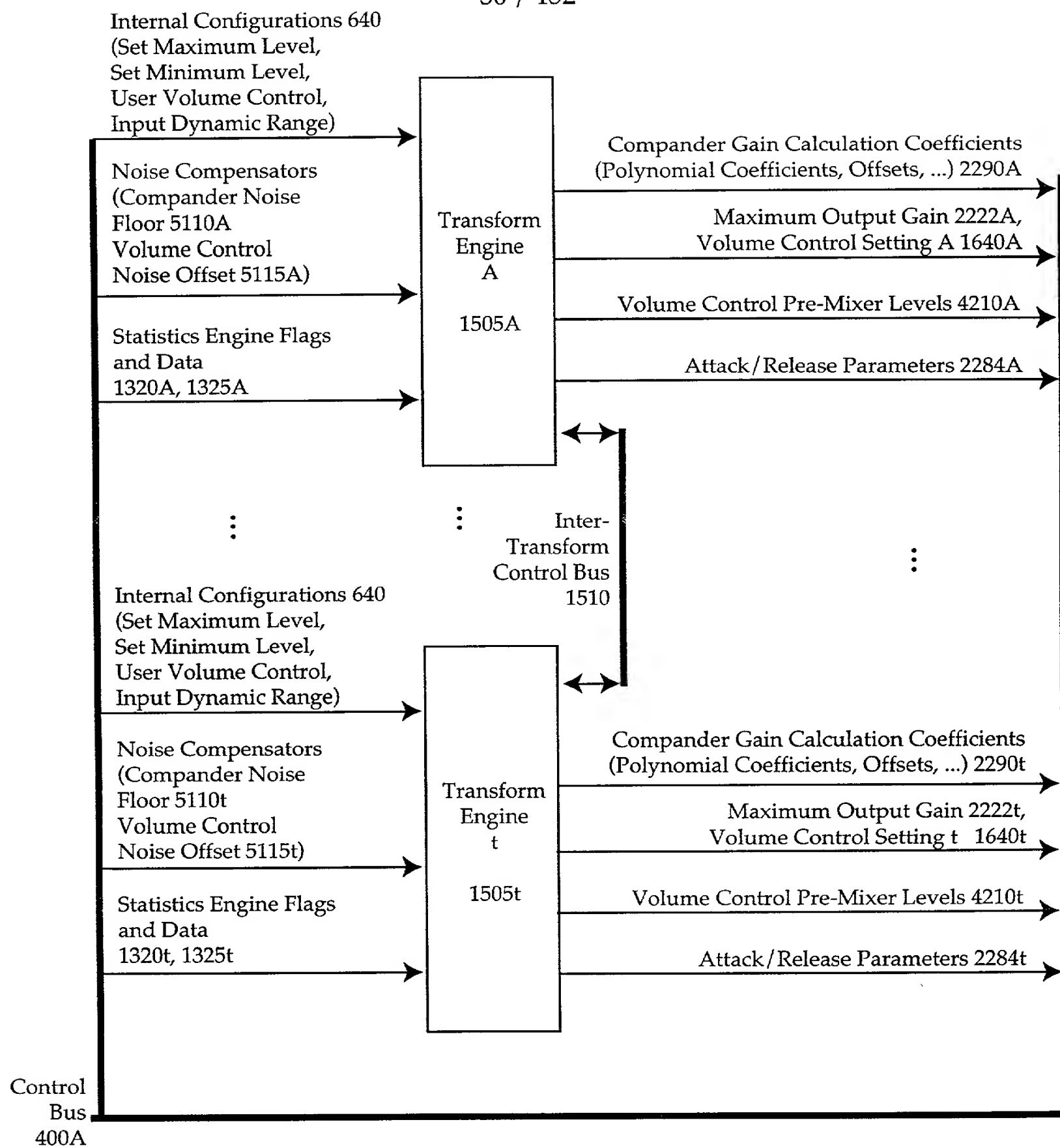


FIG. 15

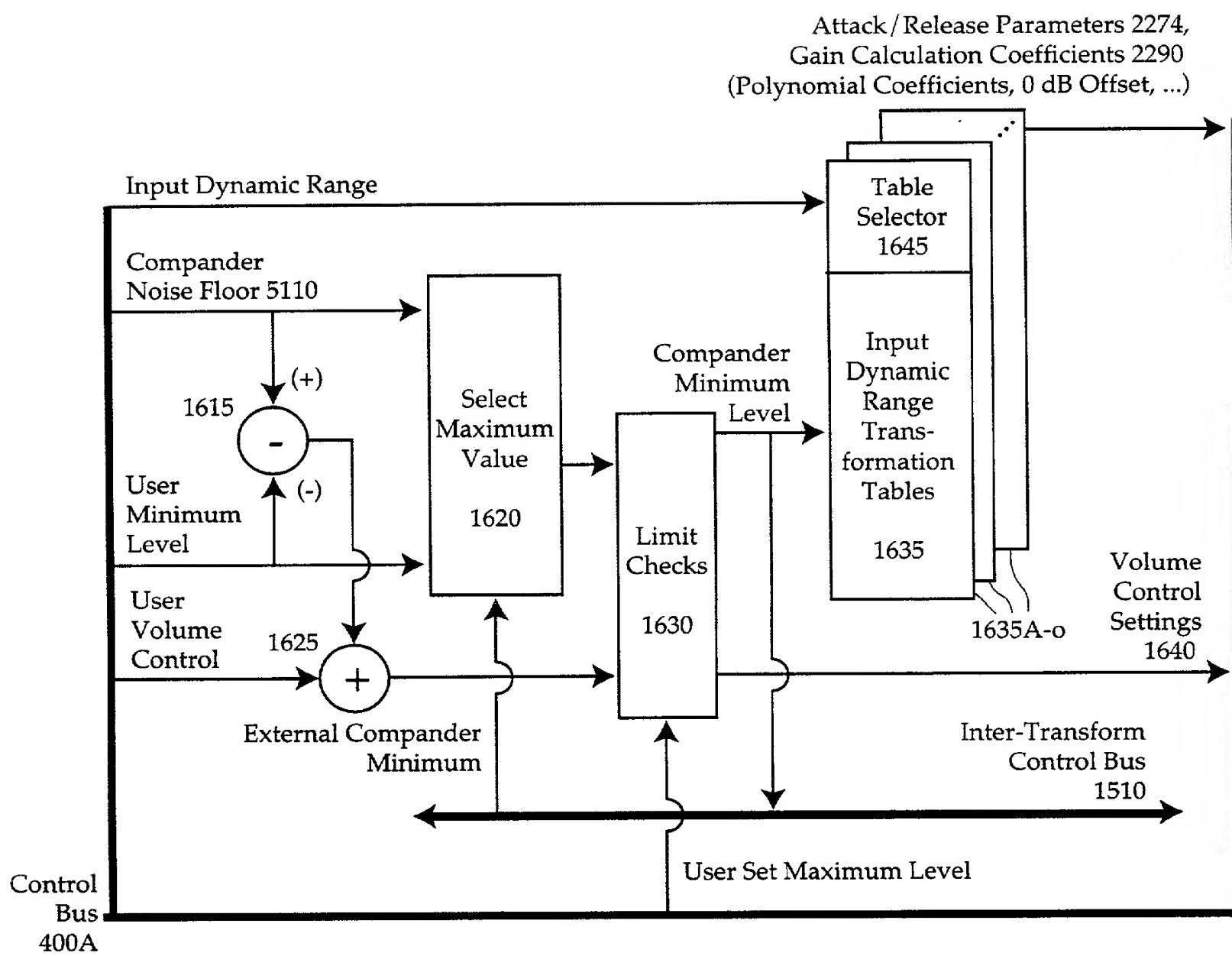


FIG. 16

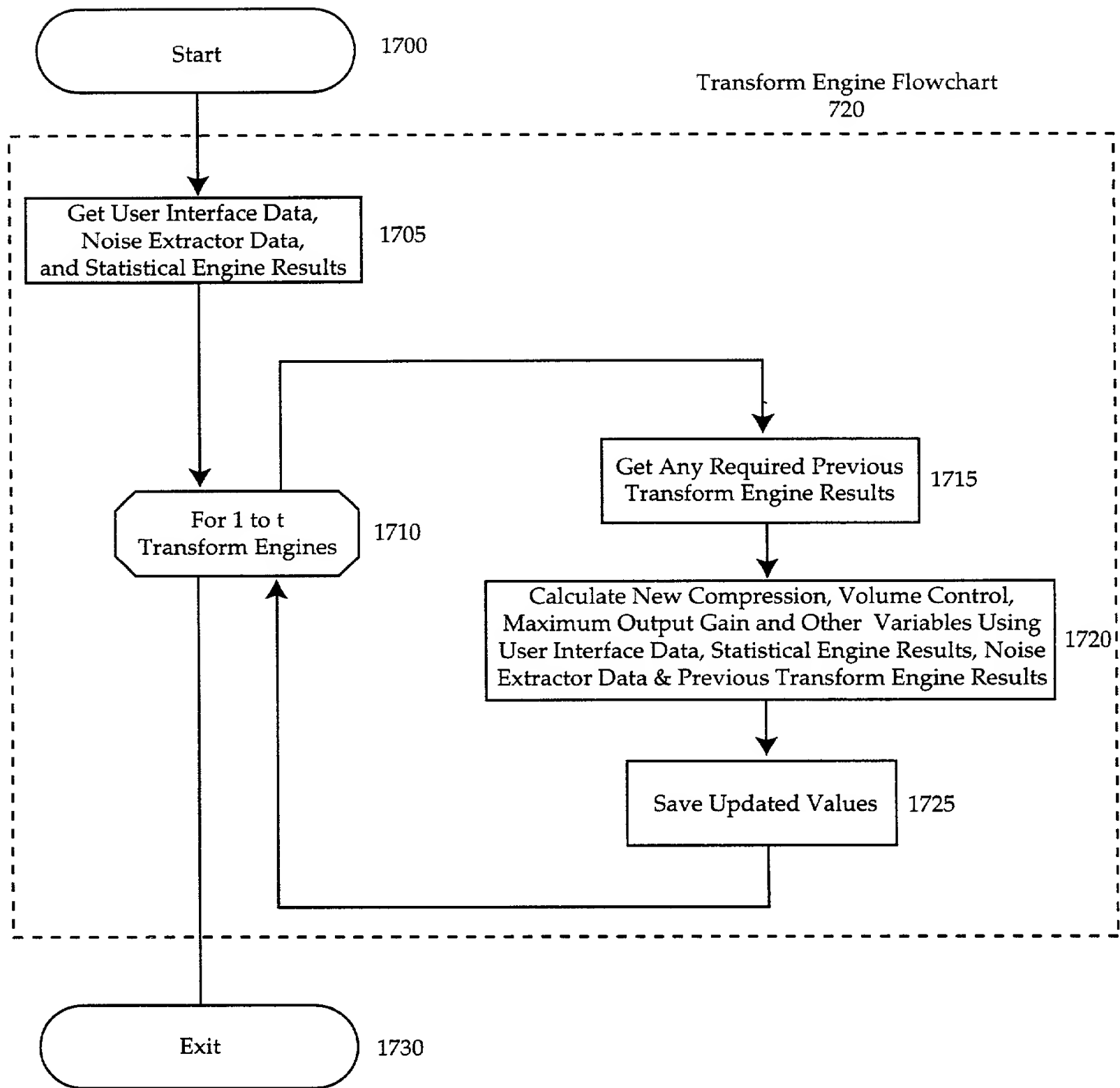


FIG. 17

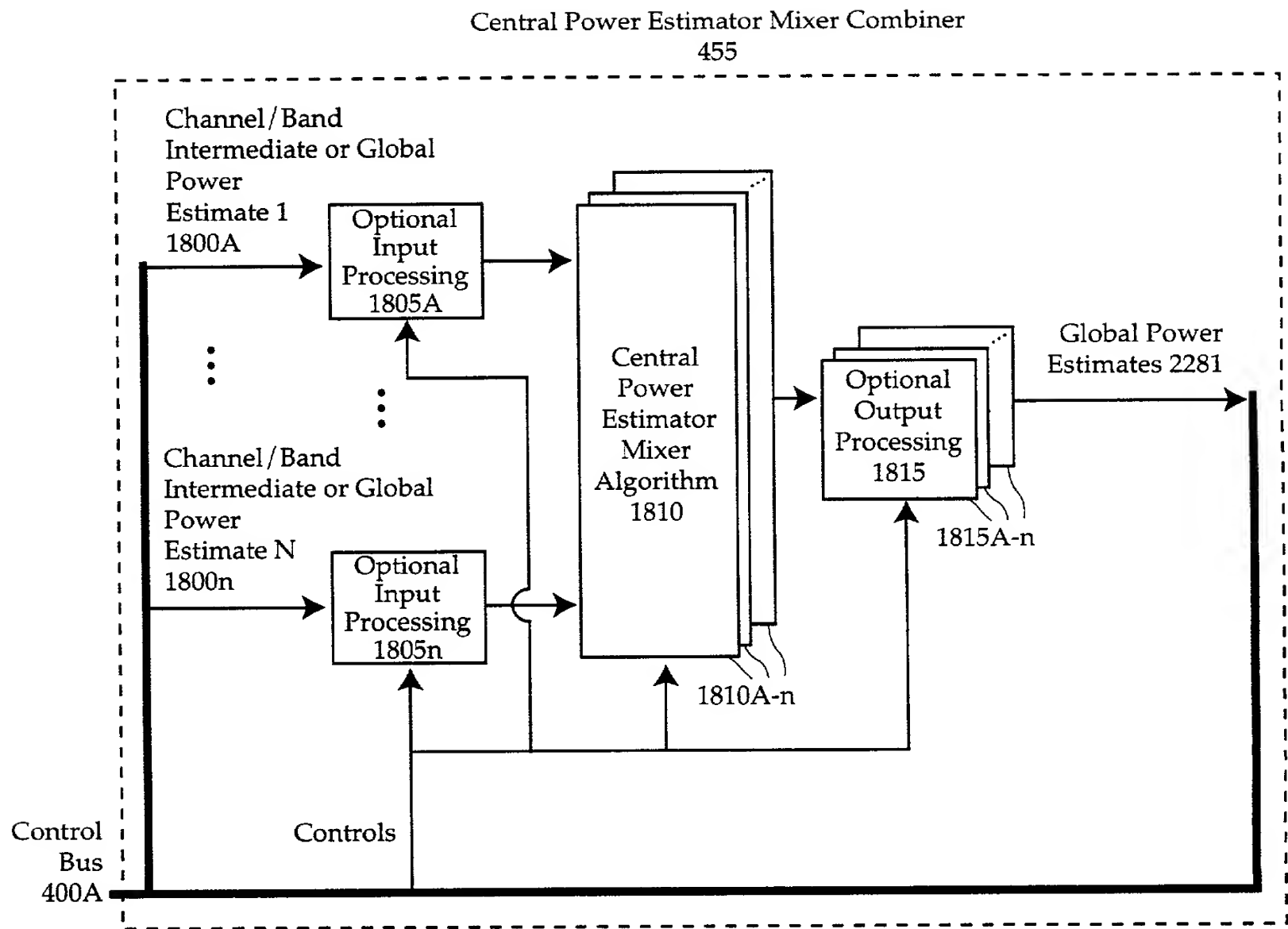


FIG. 18

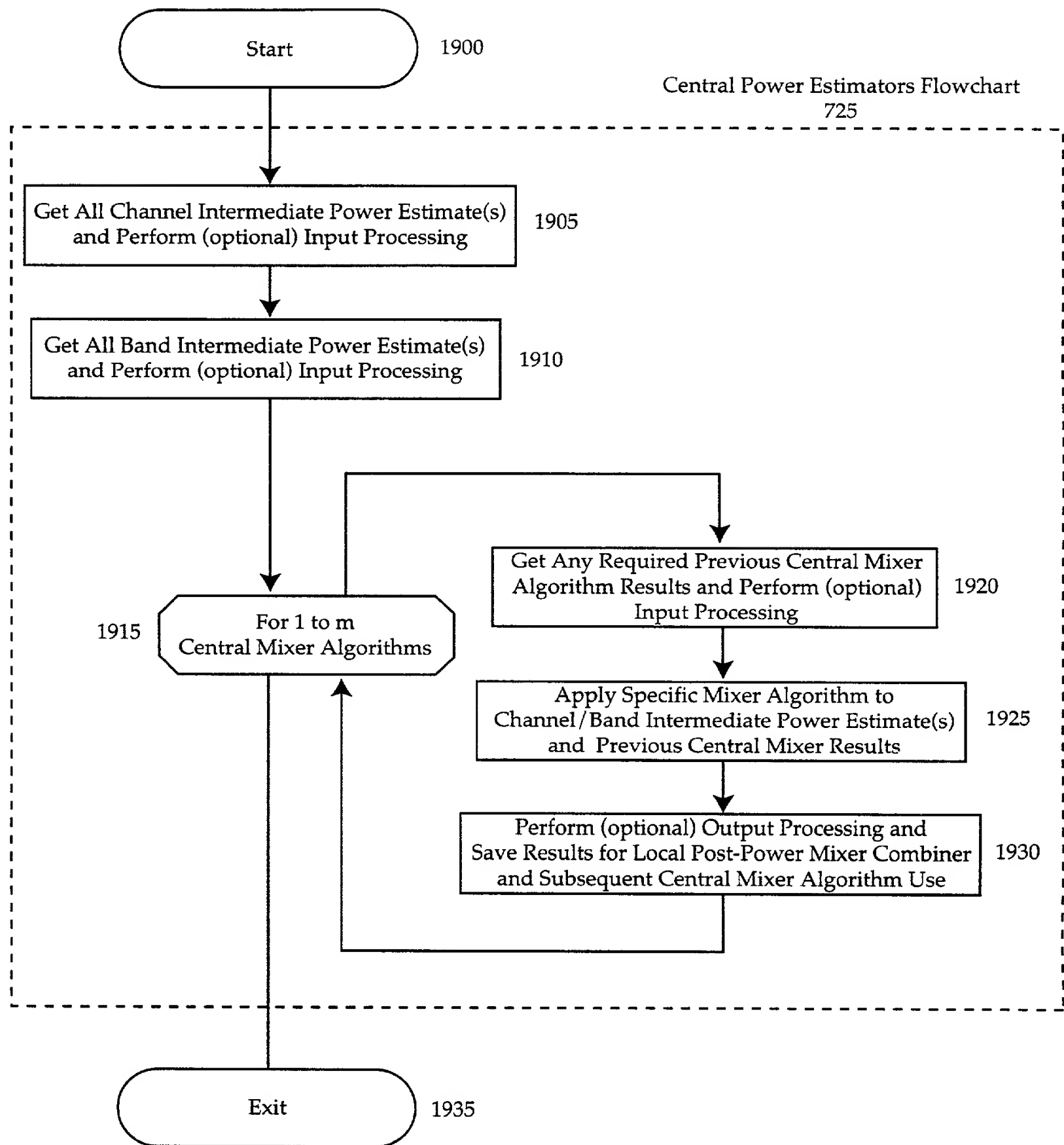


FIG. 19

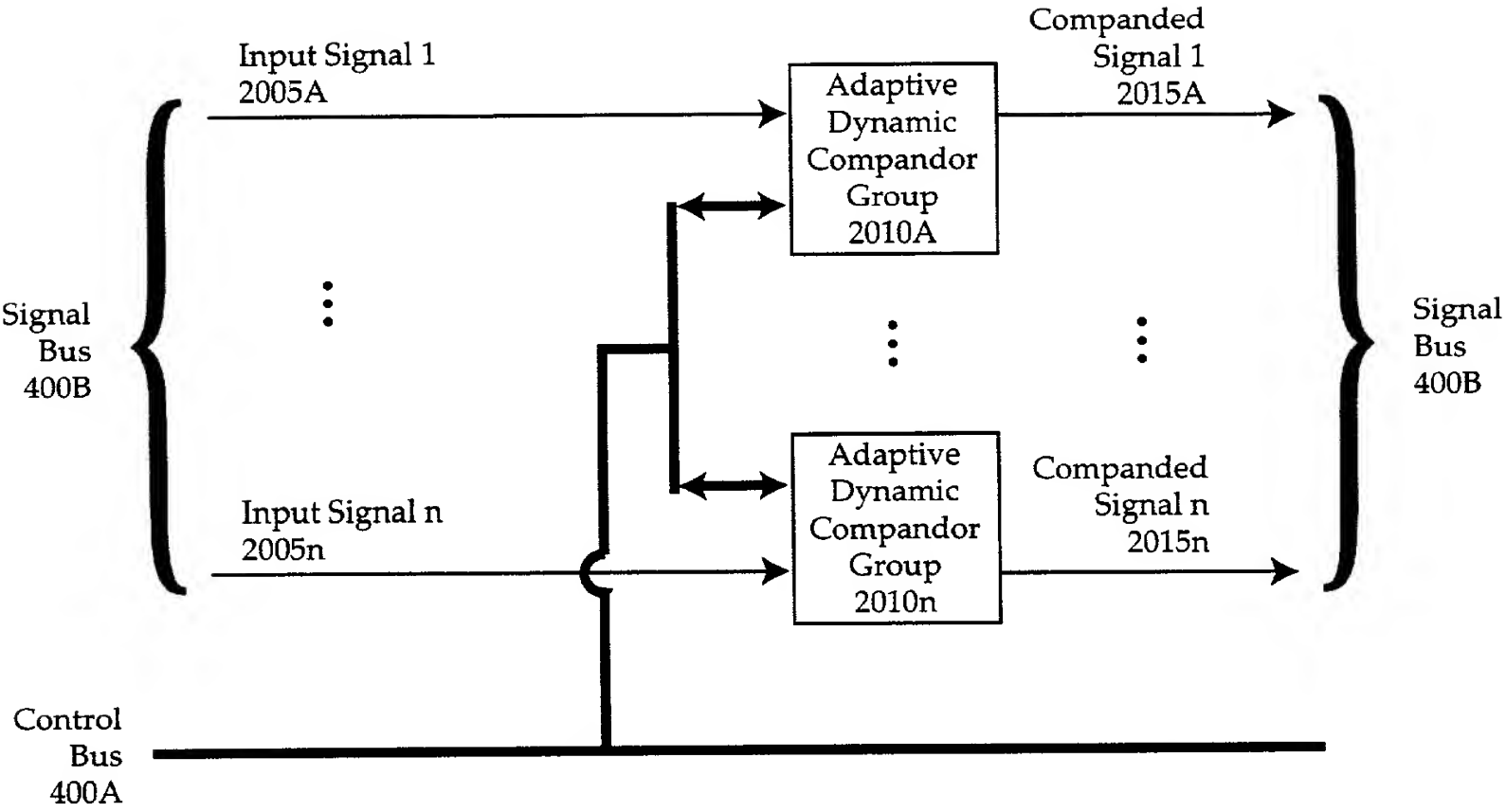


FIG. 20A

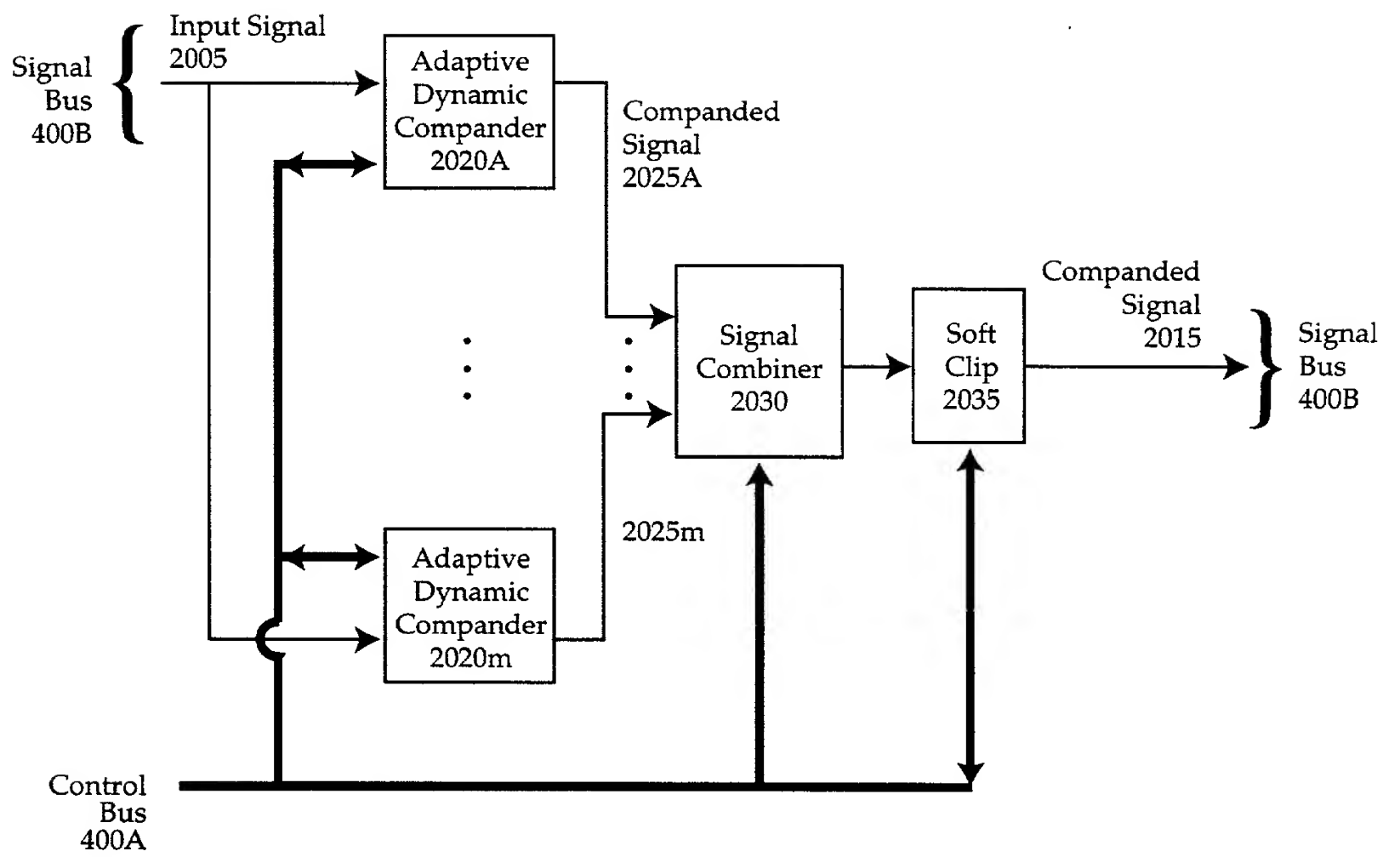


FIG. 20B

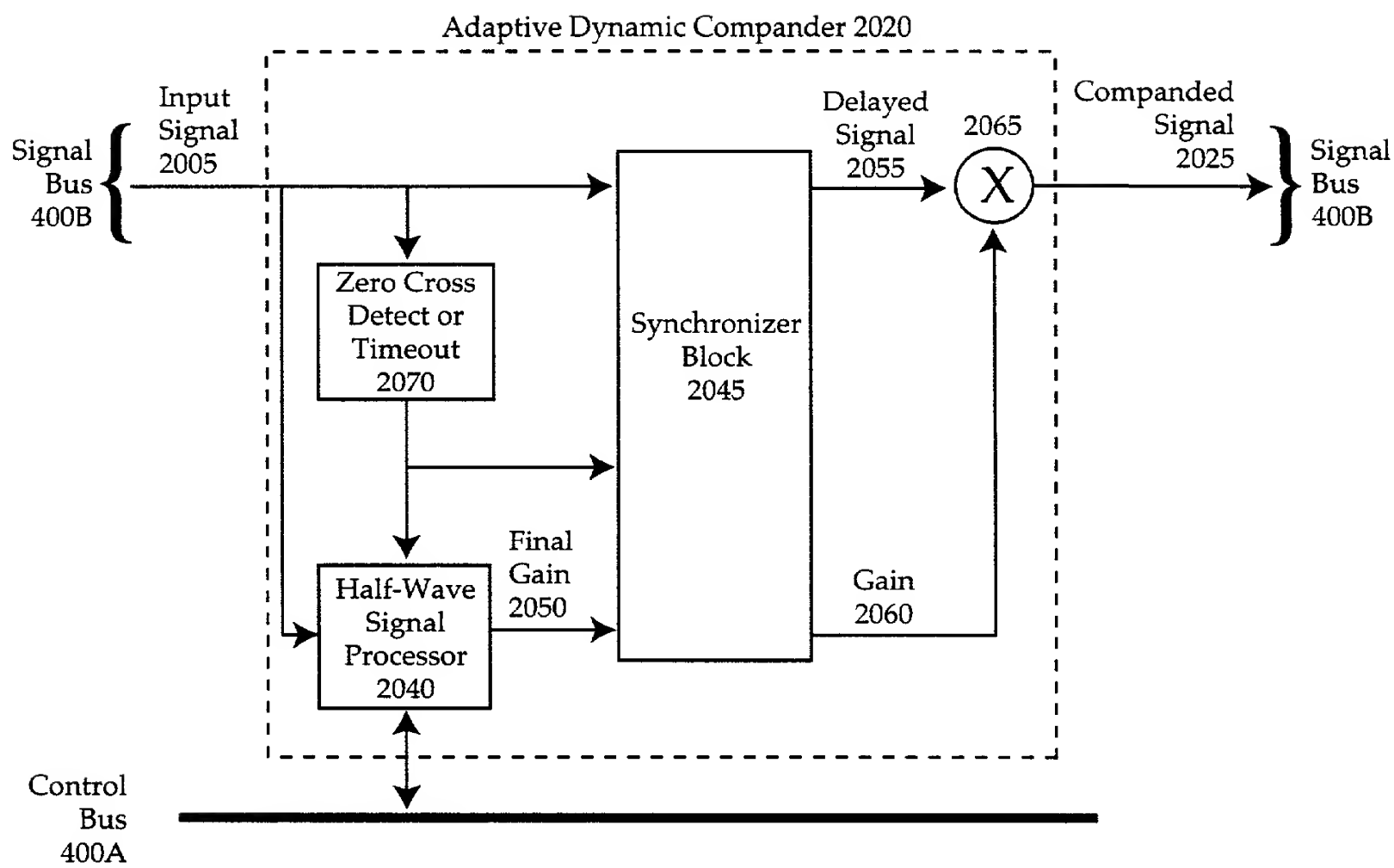


FIG. 20C

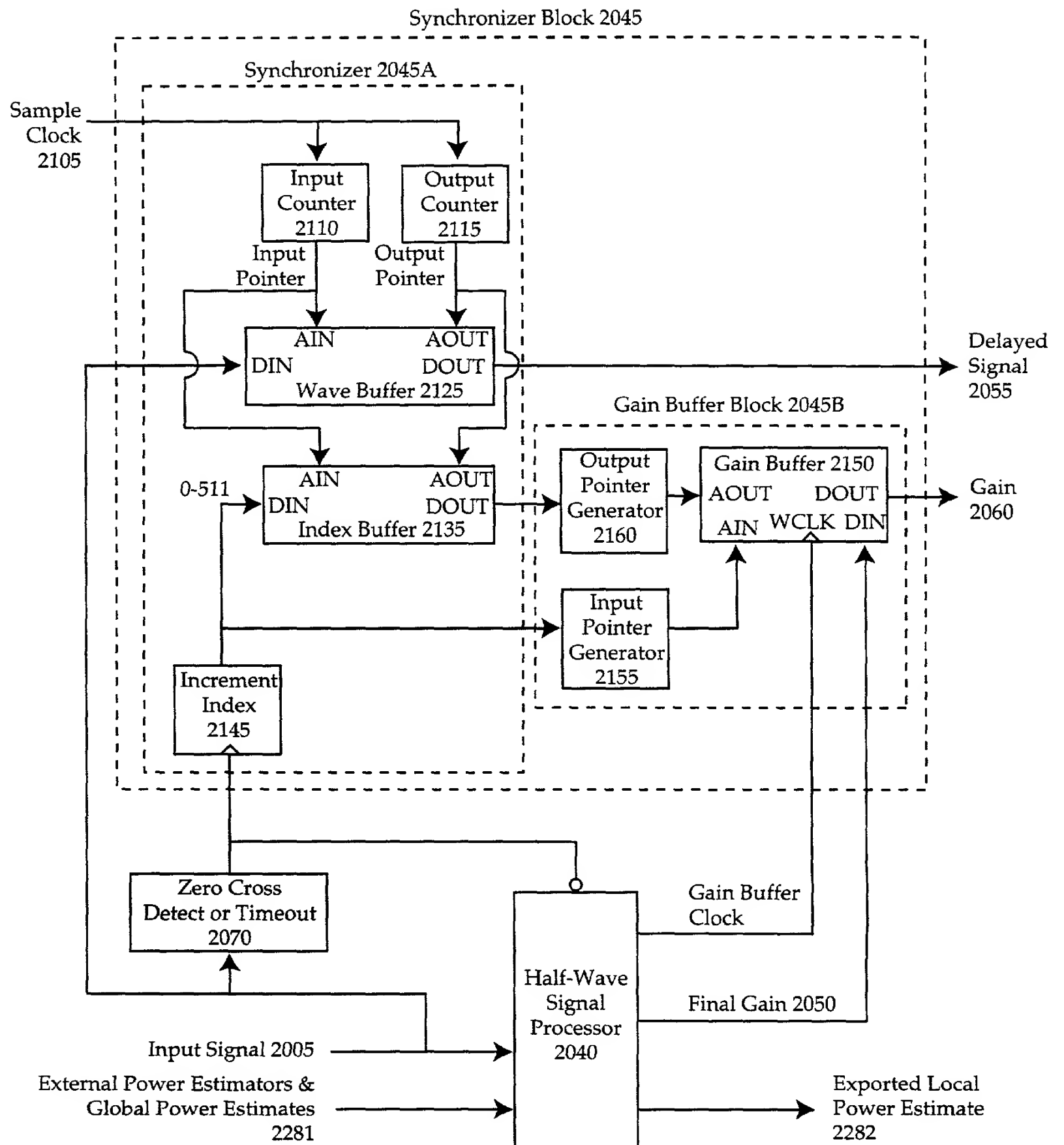


FIG. 21A

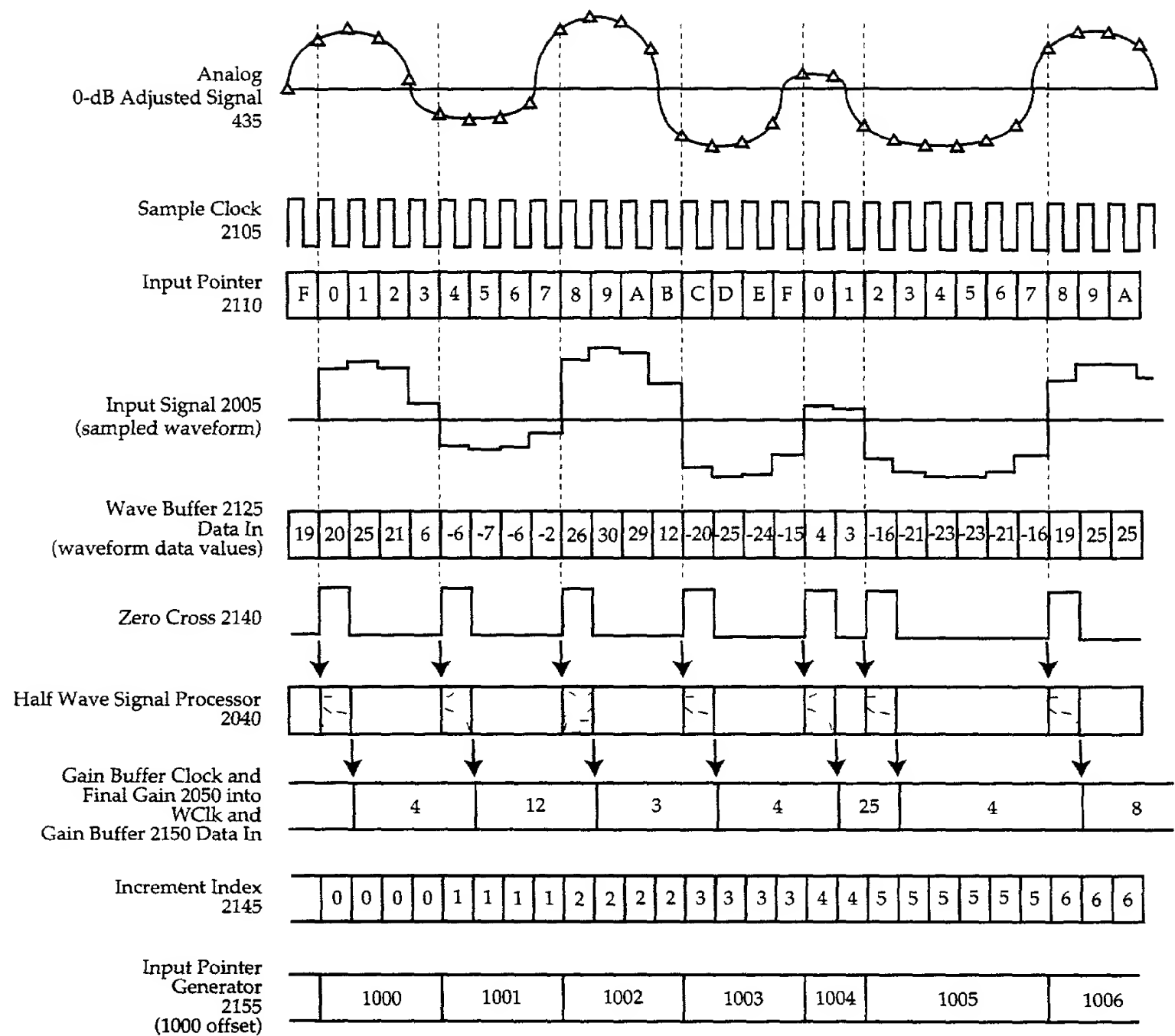
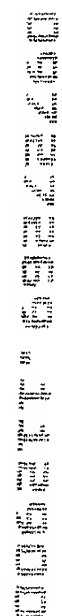


FIG. 21B



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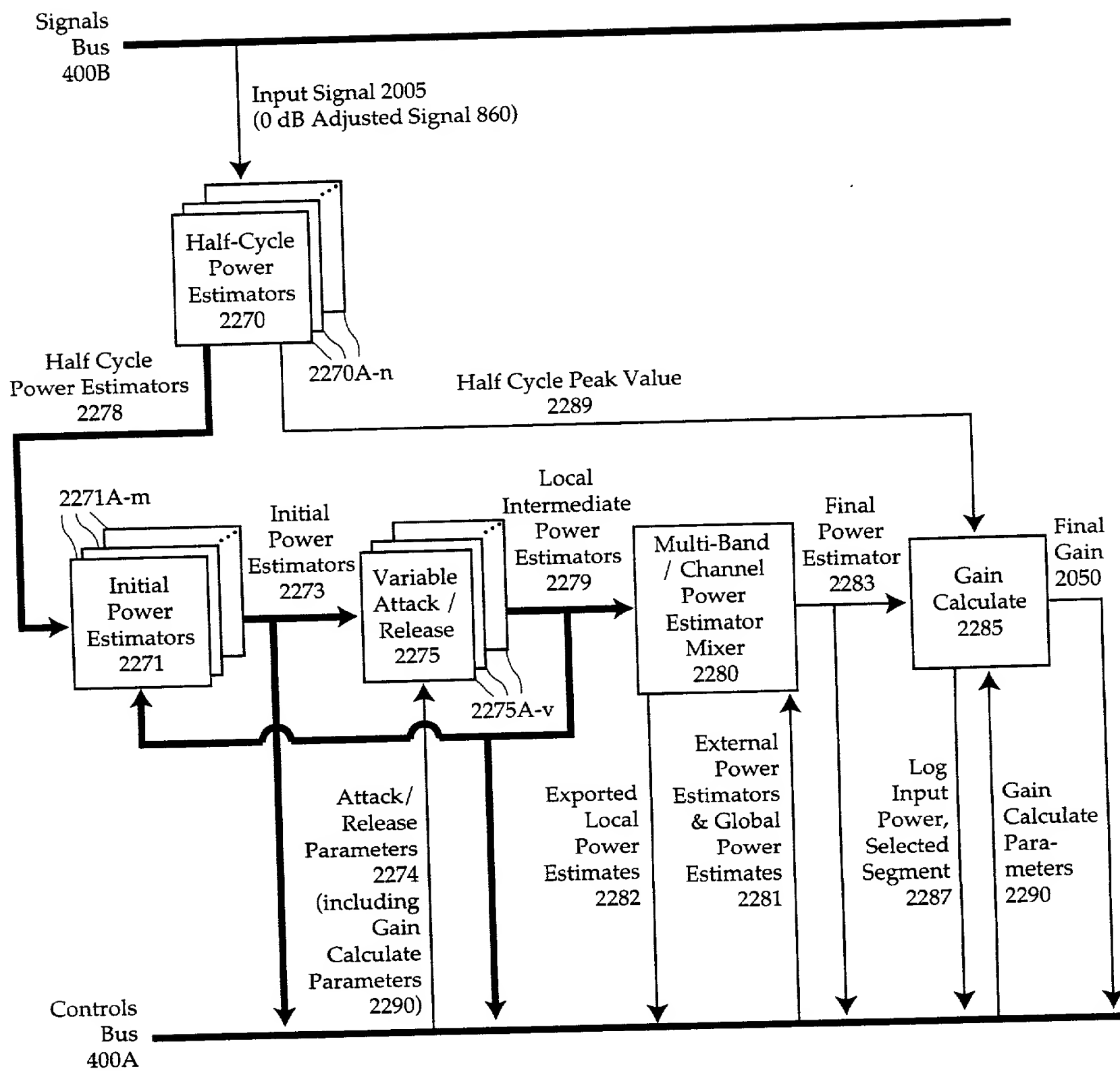


FIG. 22

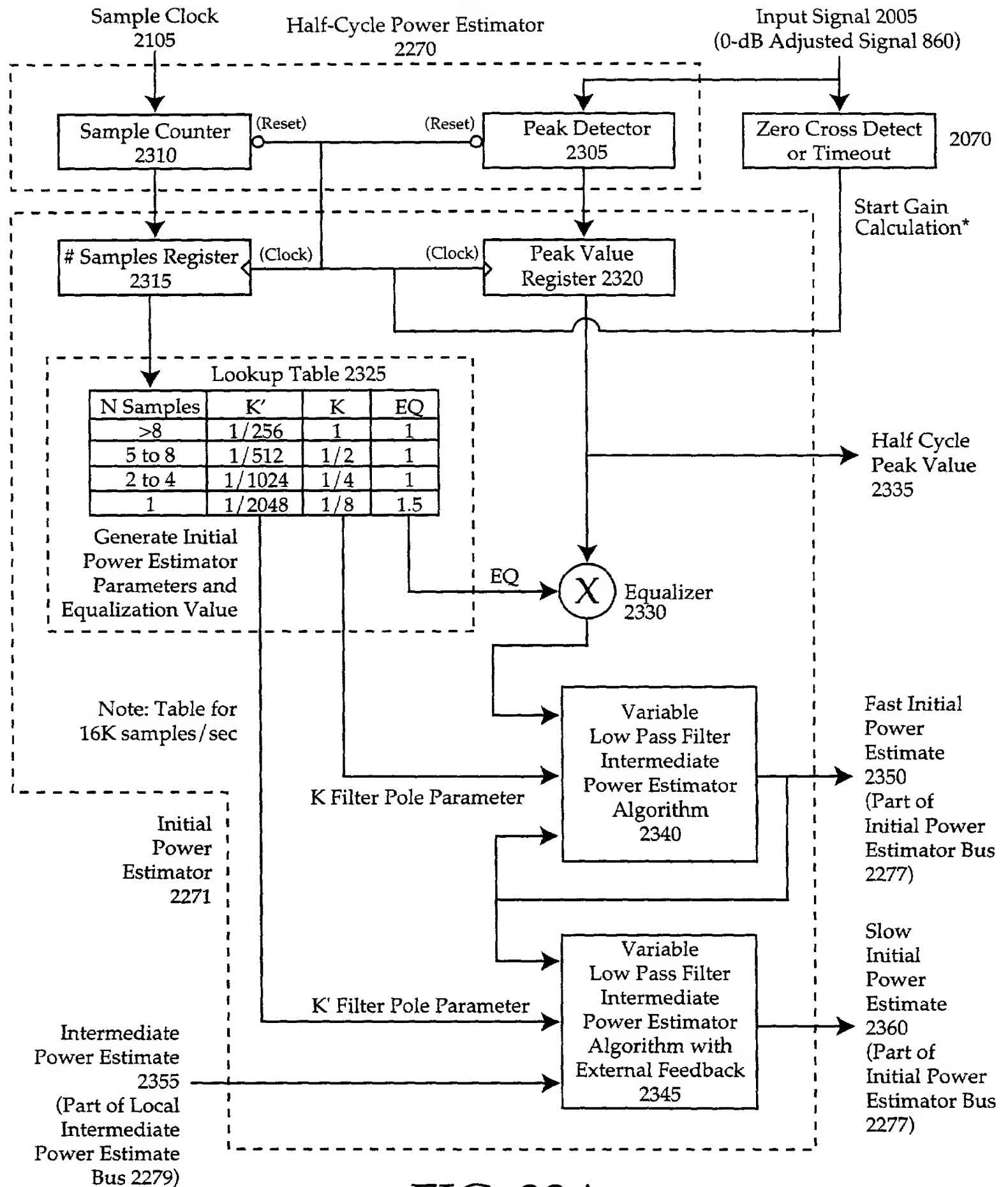


FIG. 23A

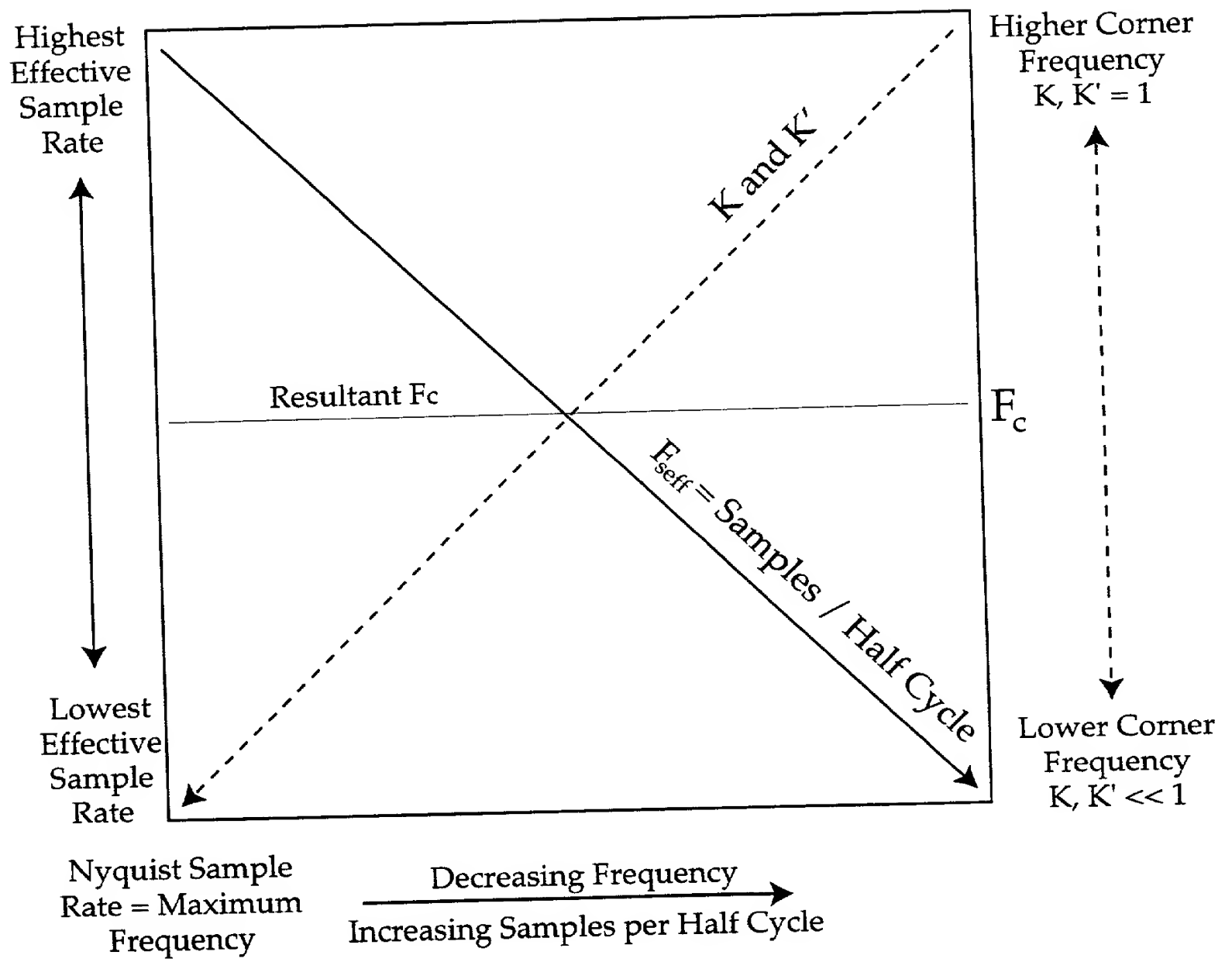
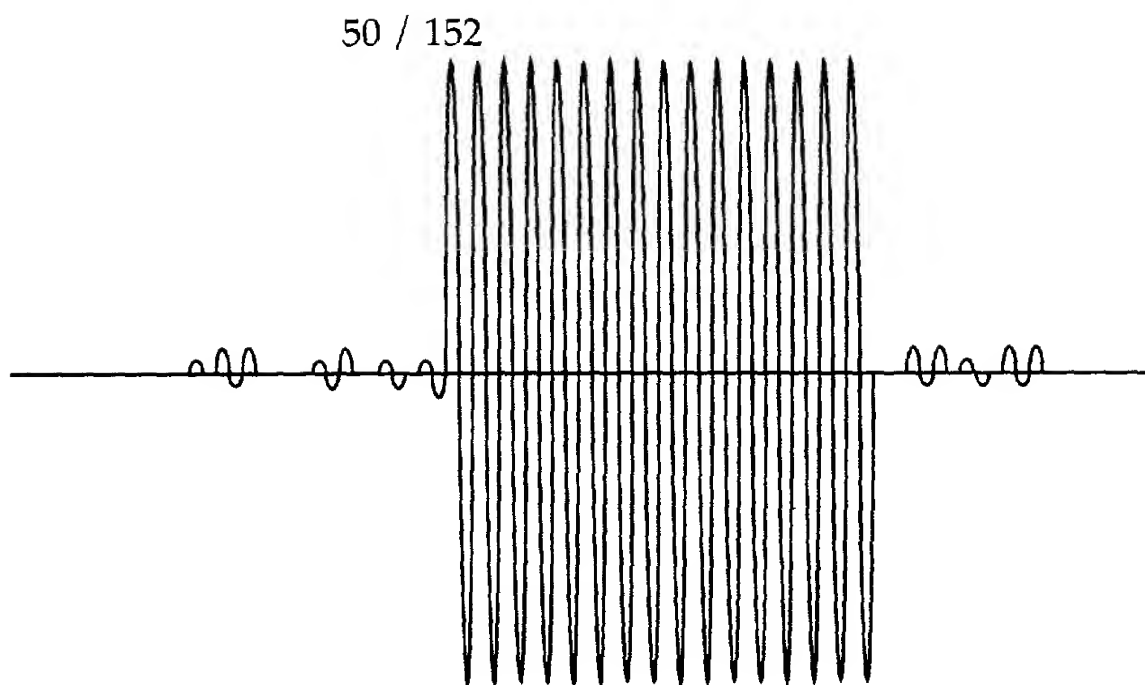


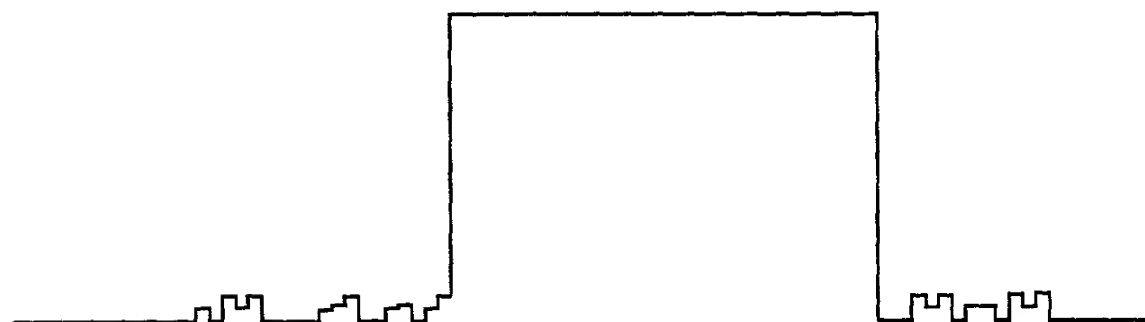
FIG. 23B

00527T"694260

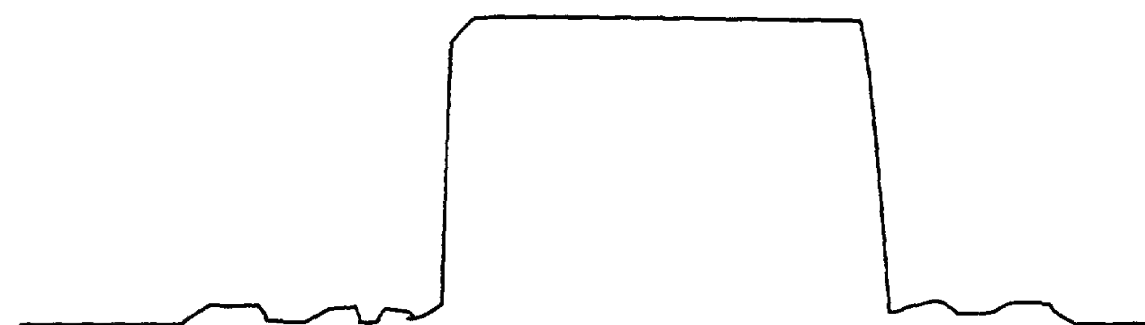
Input Signal
2005
(0-dB Adjusted
Signal 860)



Half Cycle
Peak Value
2289



Fast Initial
Power Estimate
2350



Intermediate
Power
Estimate
2355

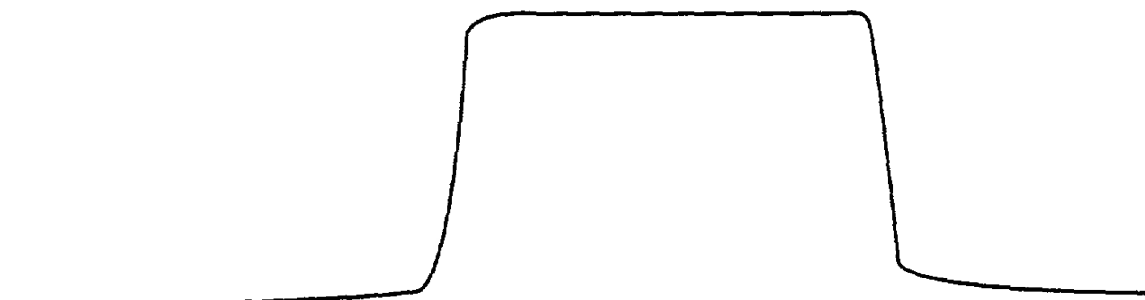


FIG. 23C

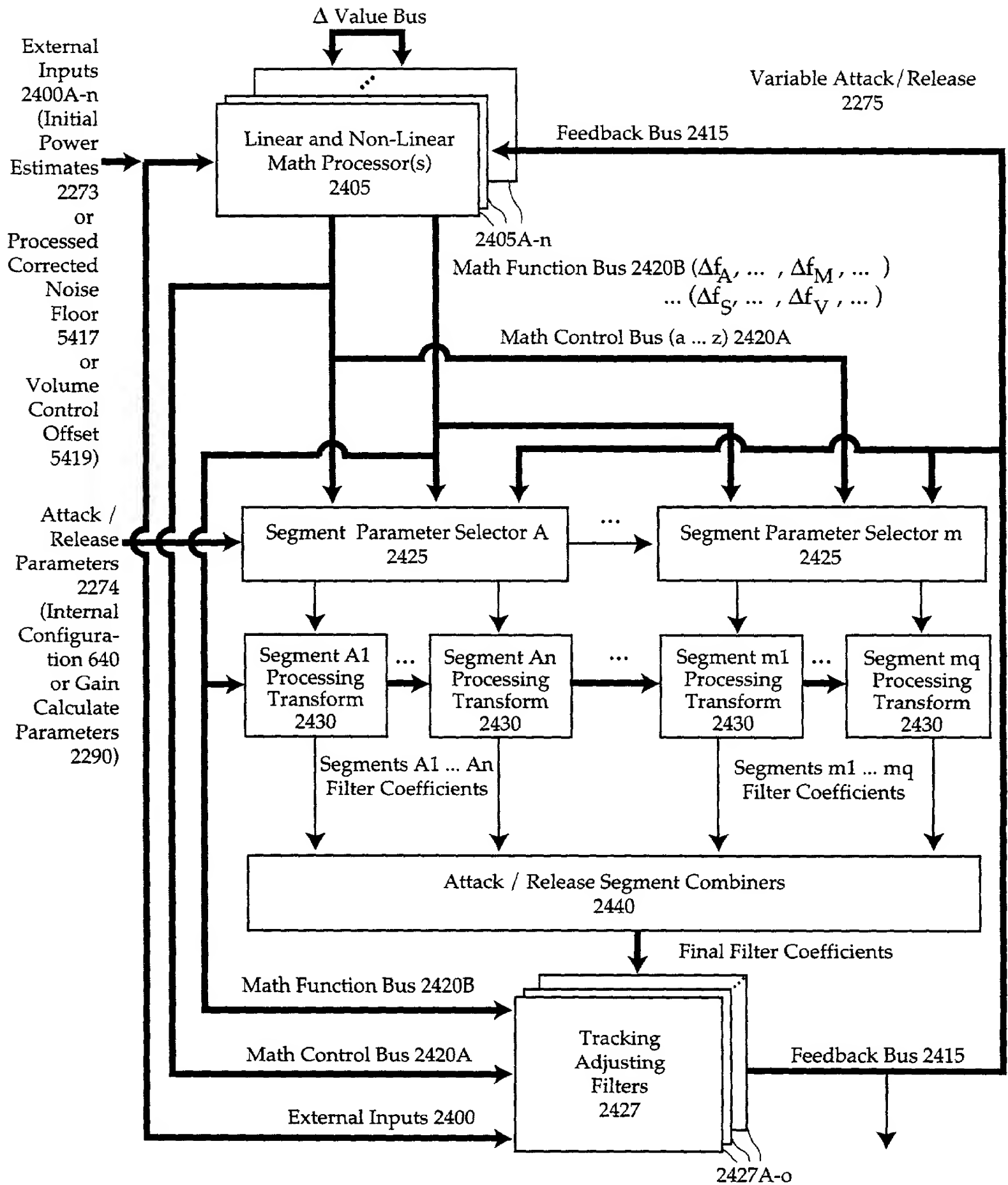


FIG. 24A

Local Intermediate Power Estimates 2279
or Long Duration Noise Floor 5425
or Long Duration Noise Offset 5427

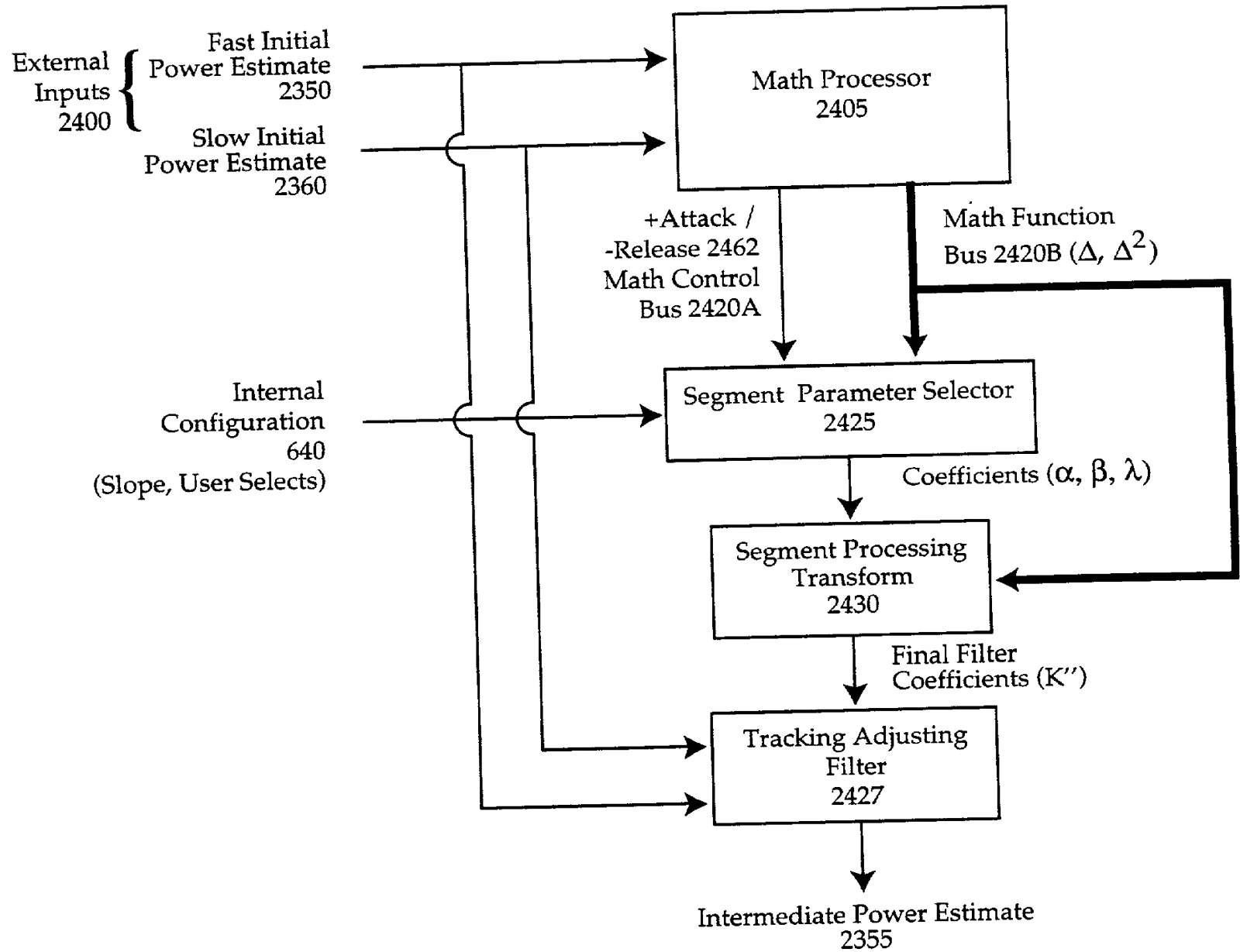
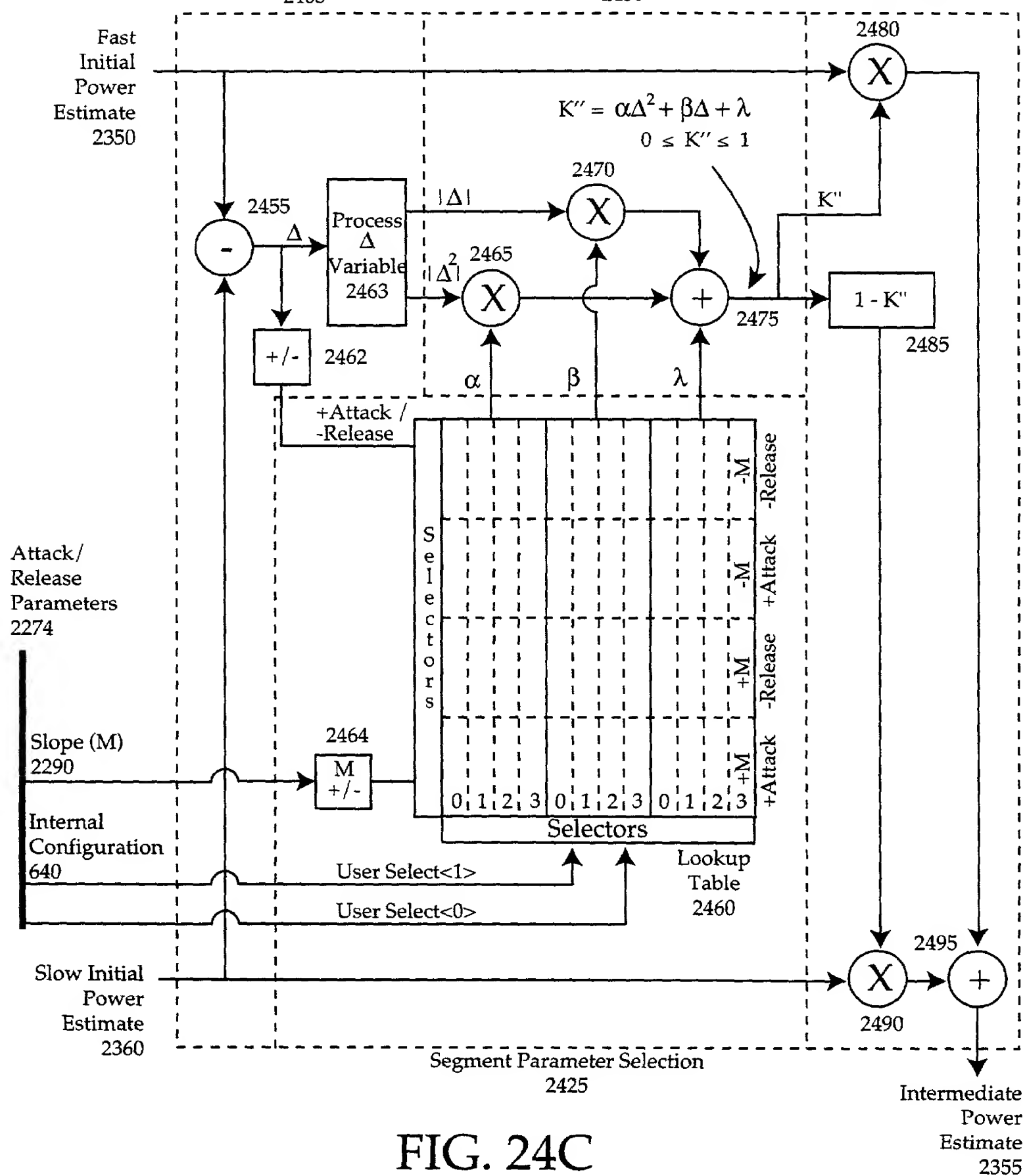


FIG. 24B



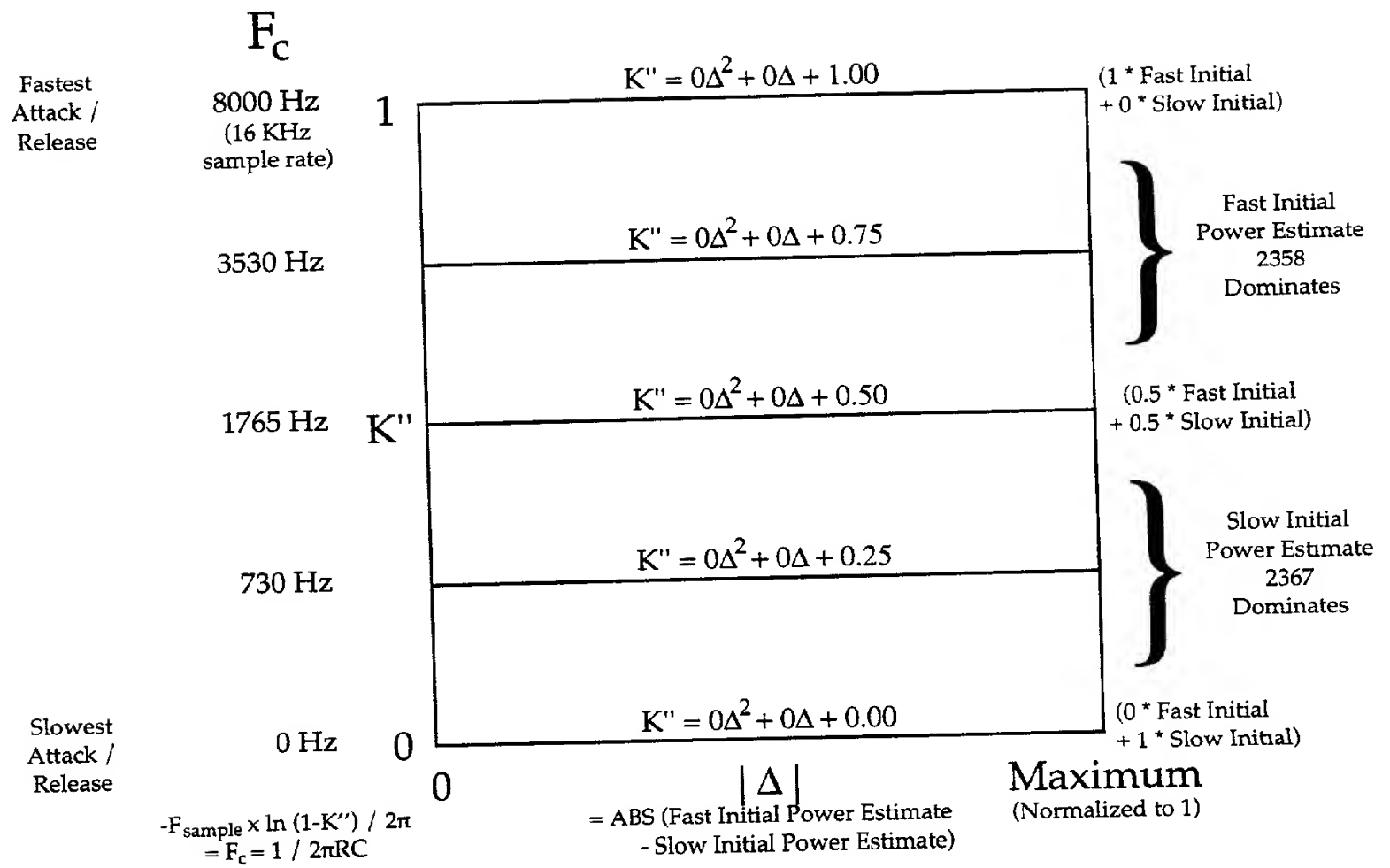


FIG. 24D

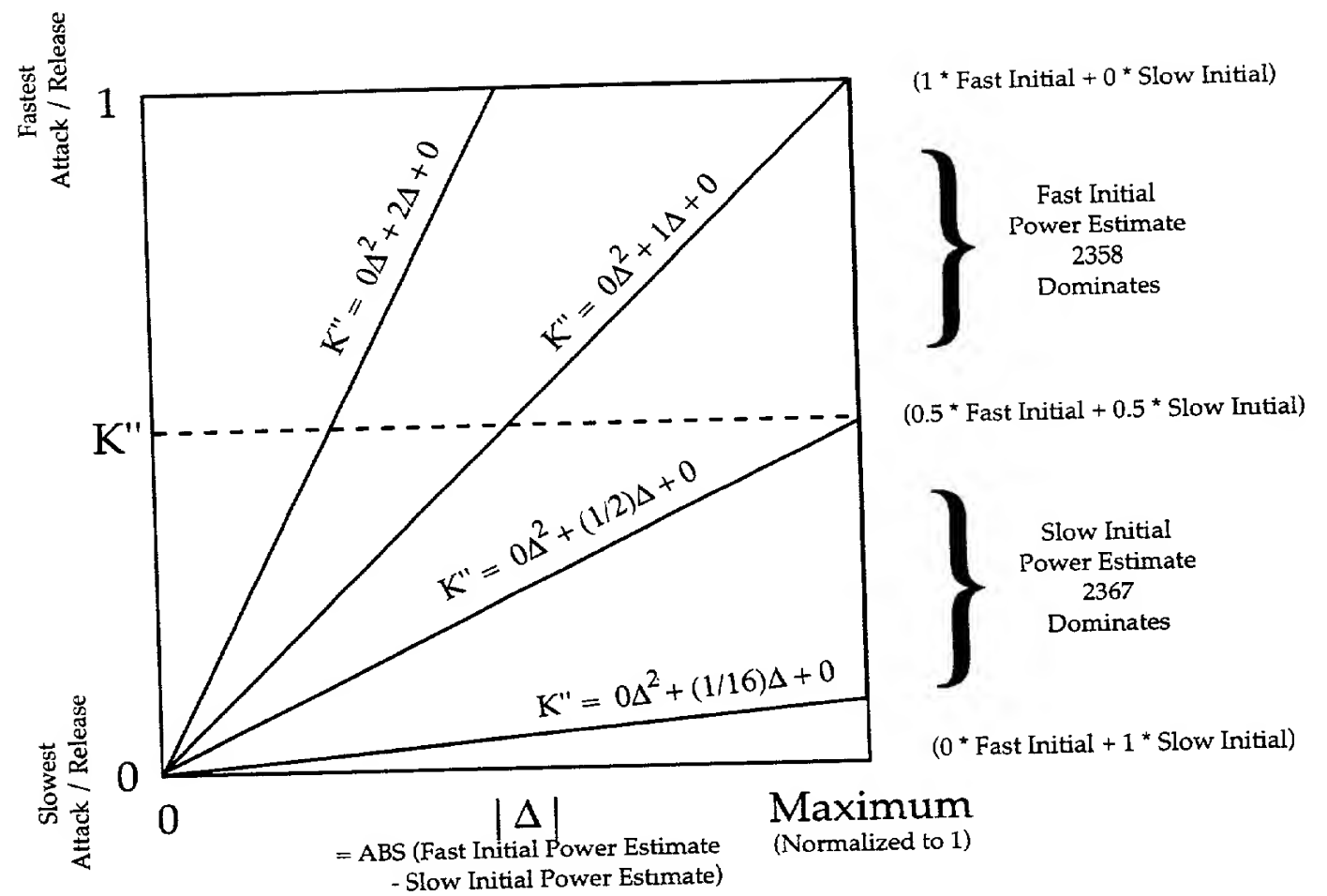


FIG. 24E

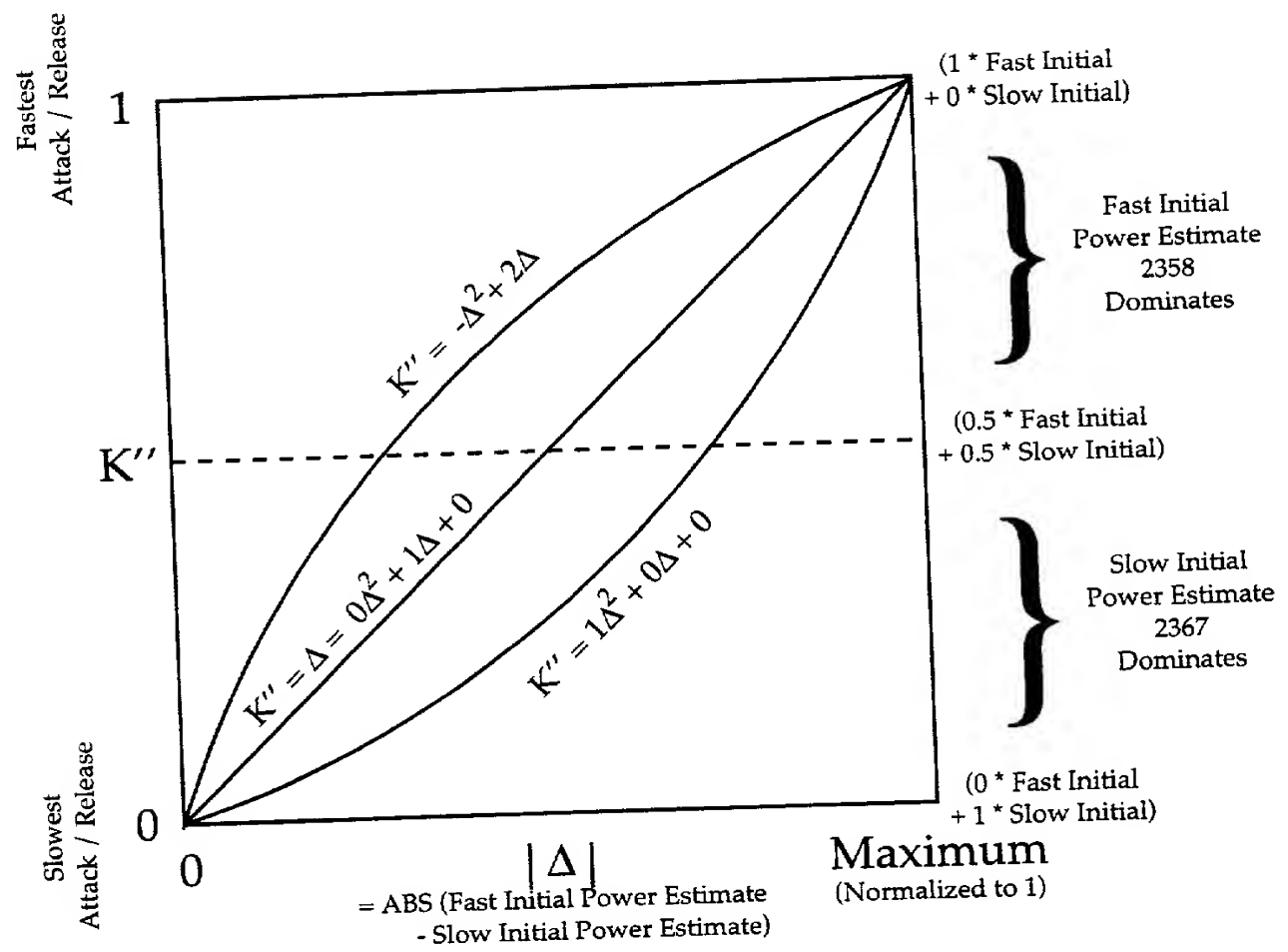


FIG. 24F

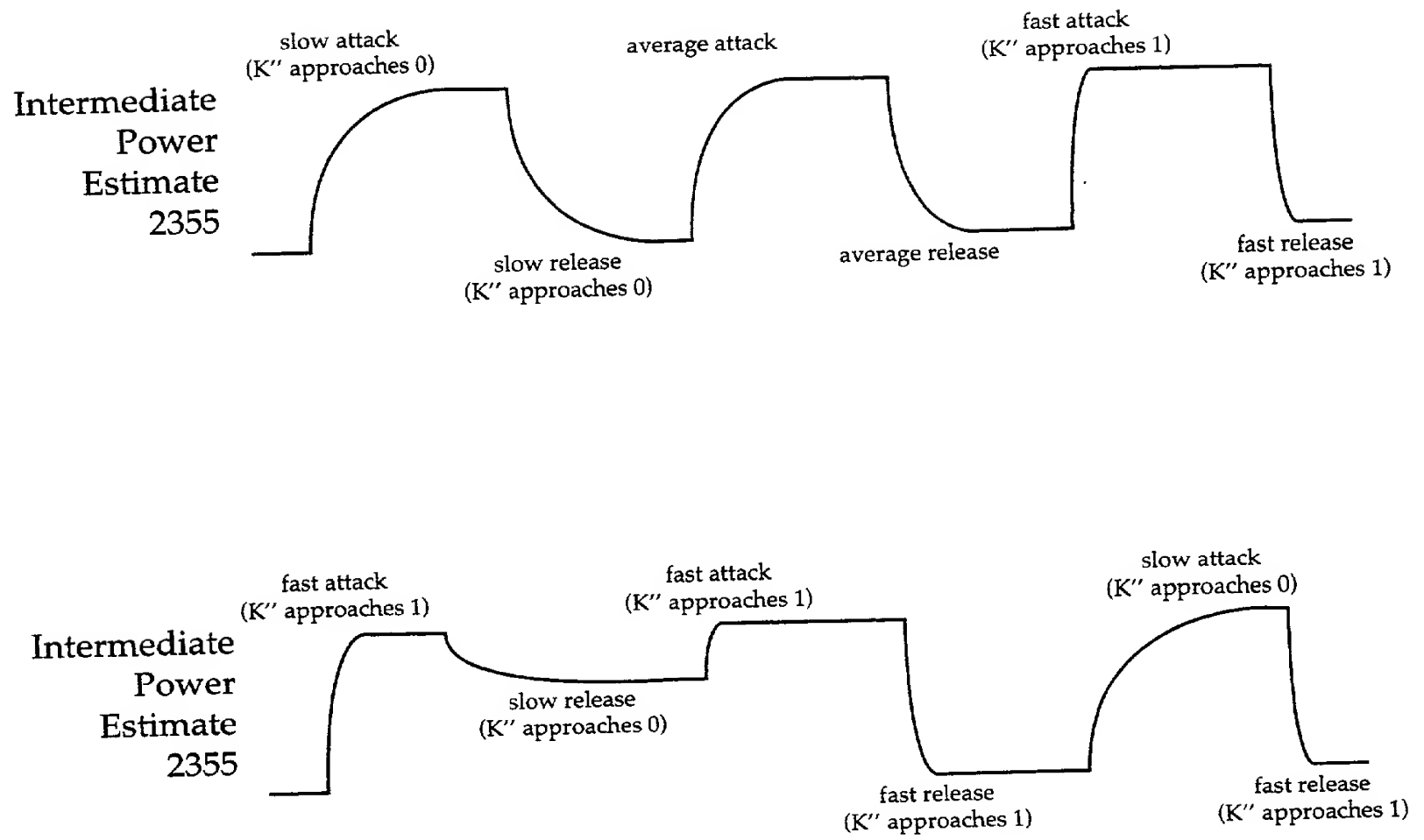


FIG. 24G

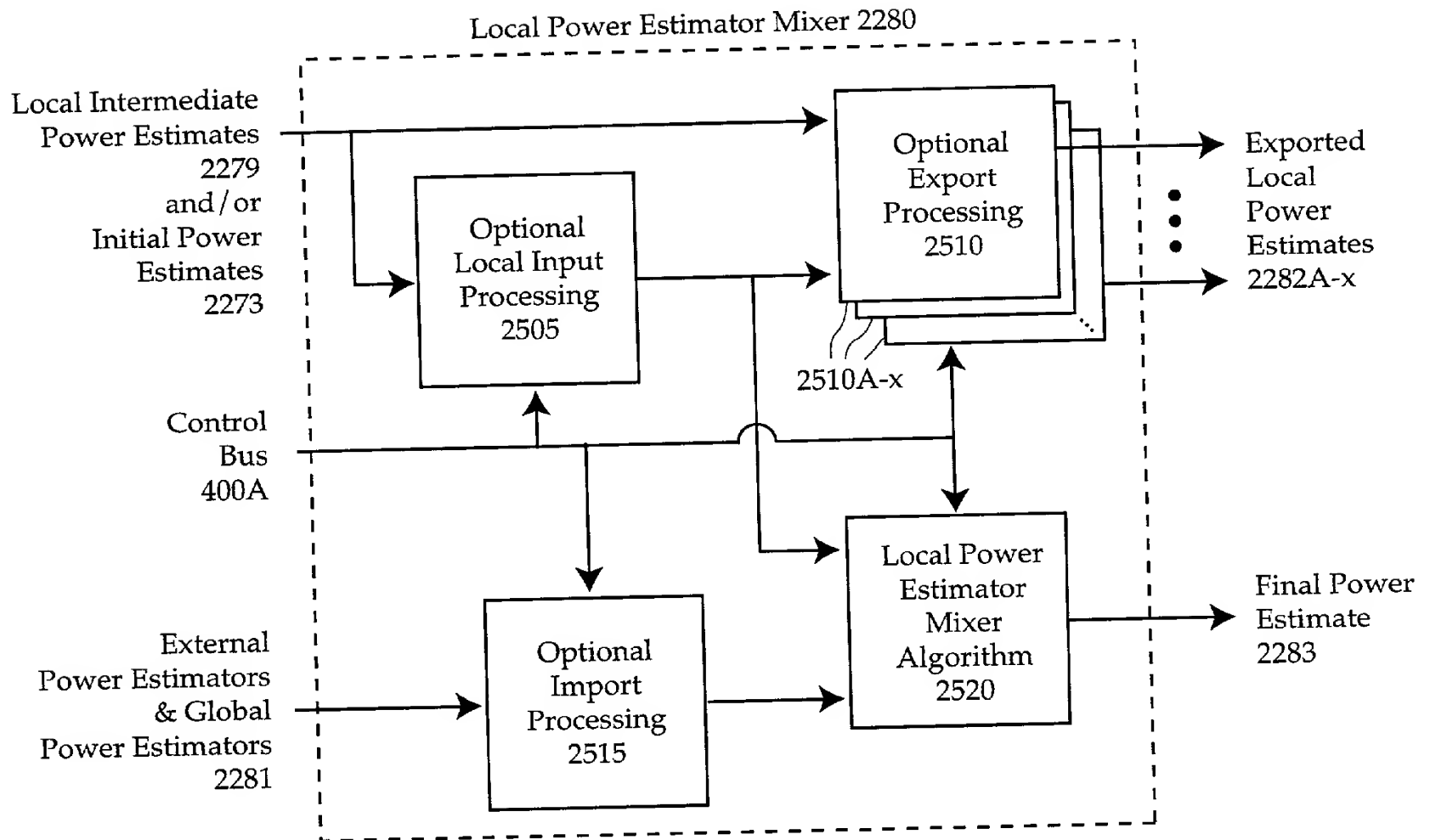


FIG. 25A

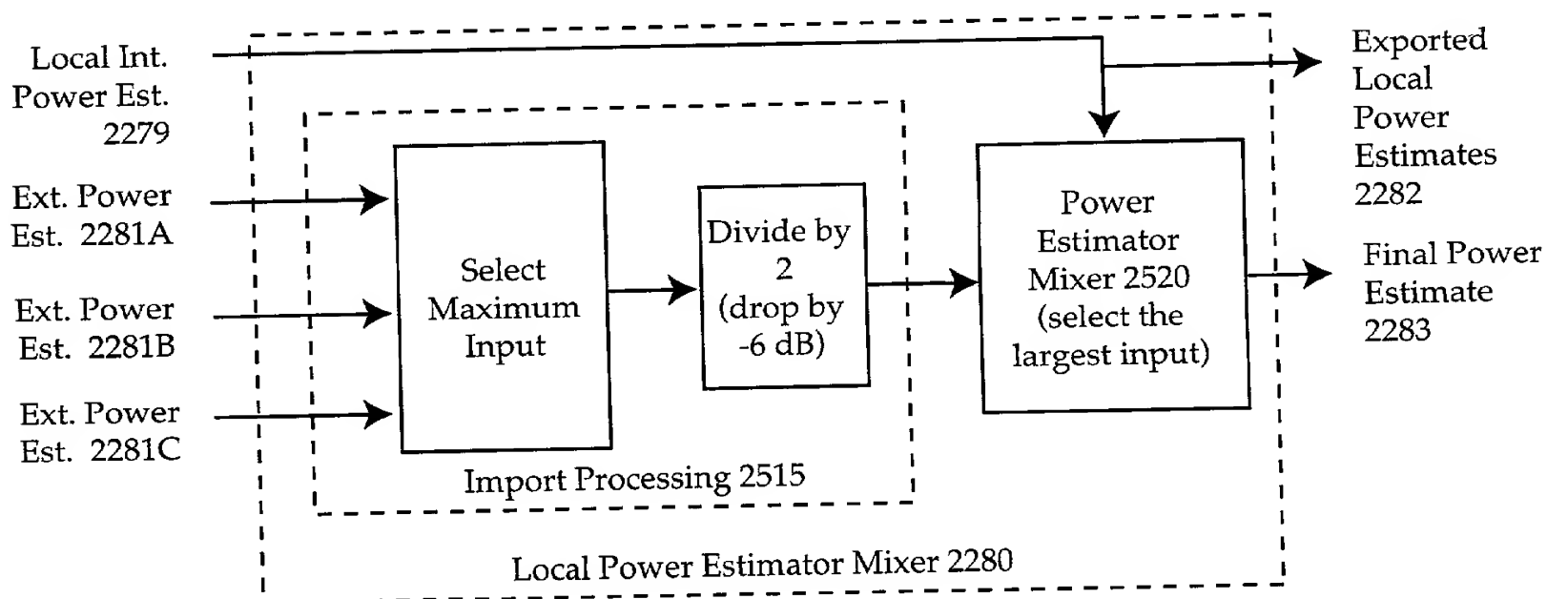


FIG. 25B

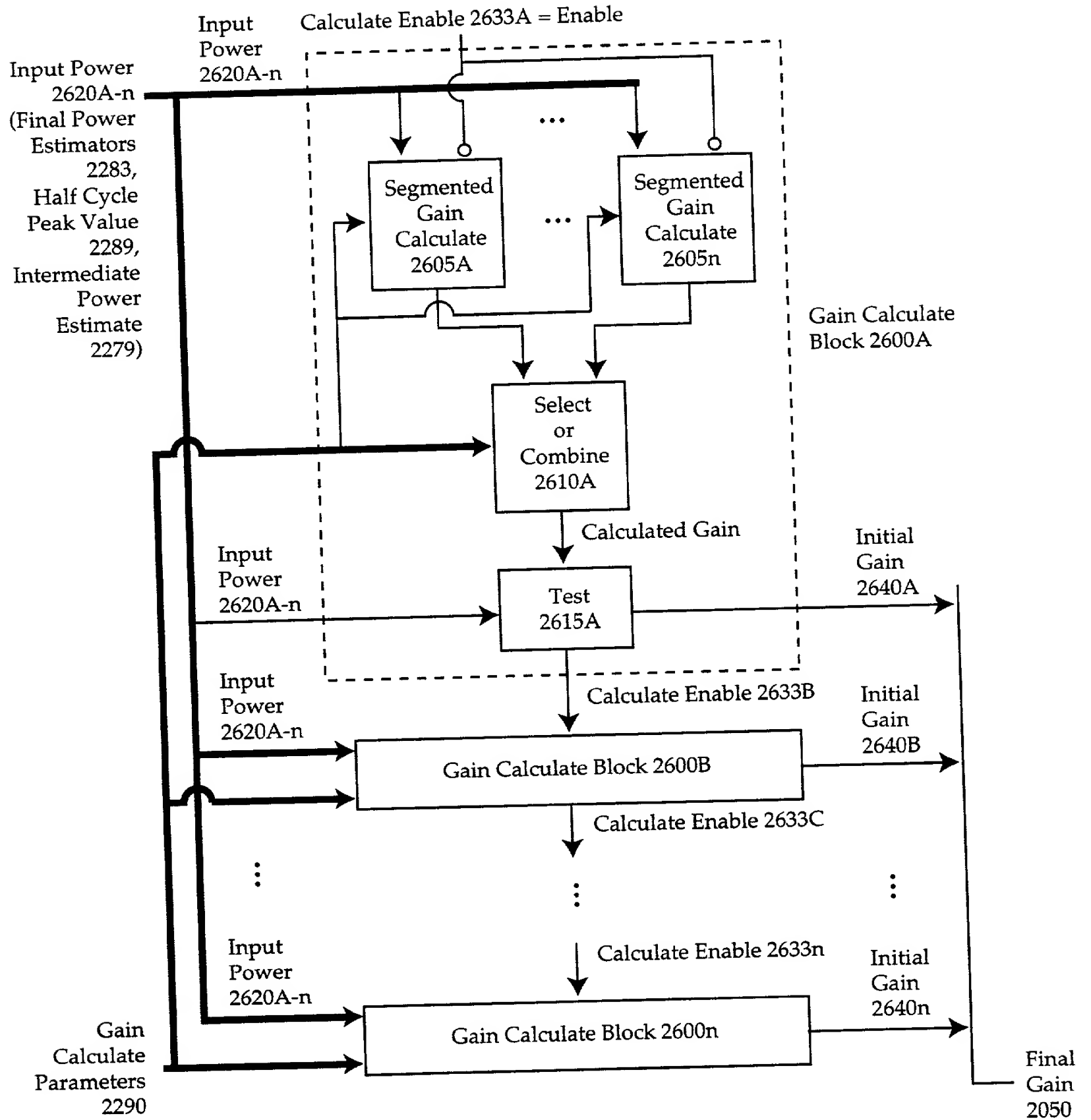


FIG. 26A

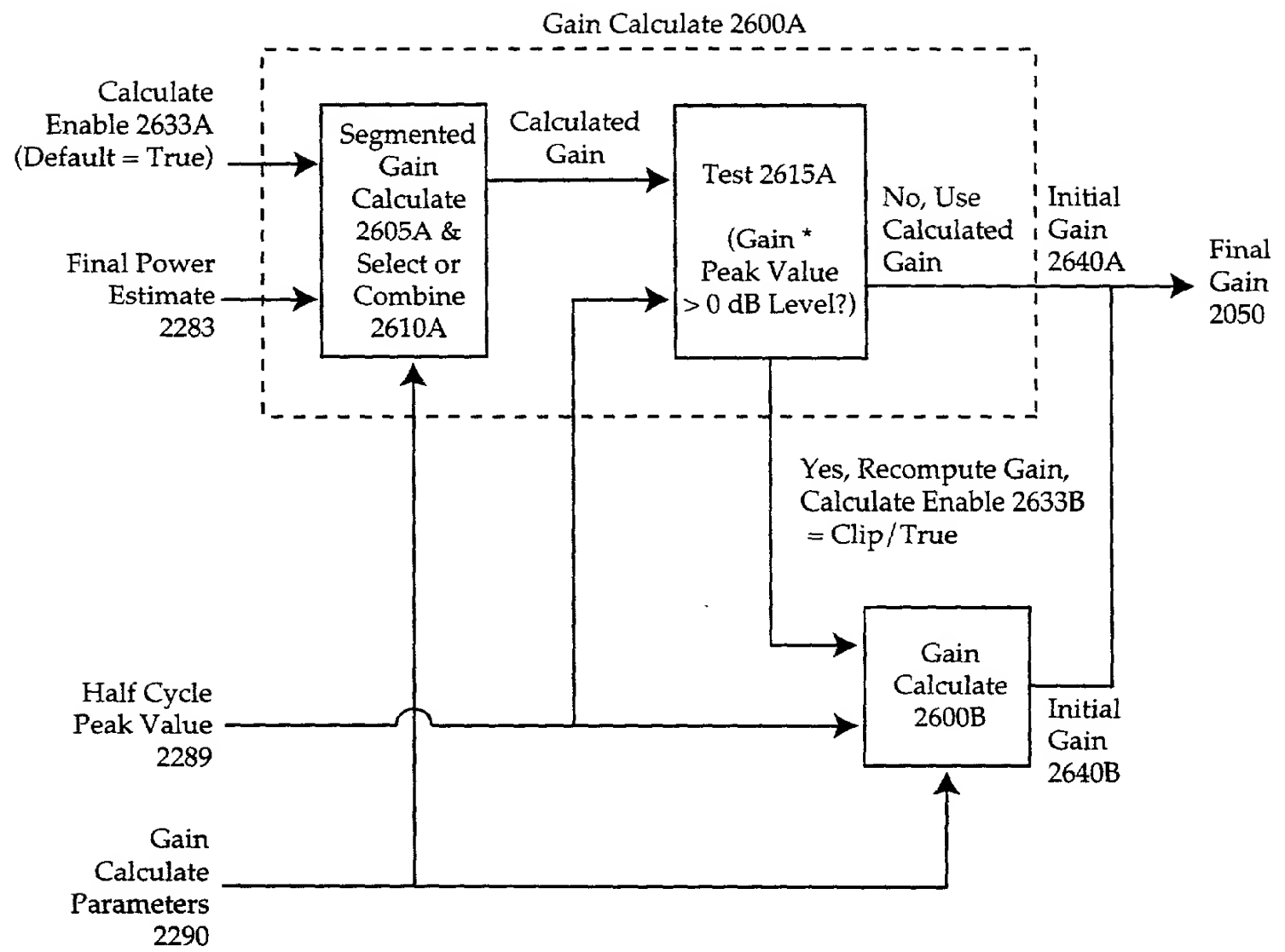


FIG. 26B

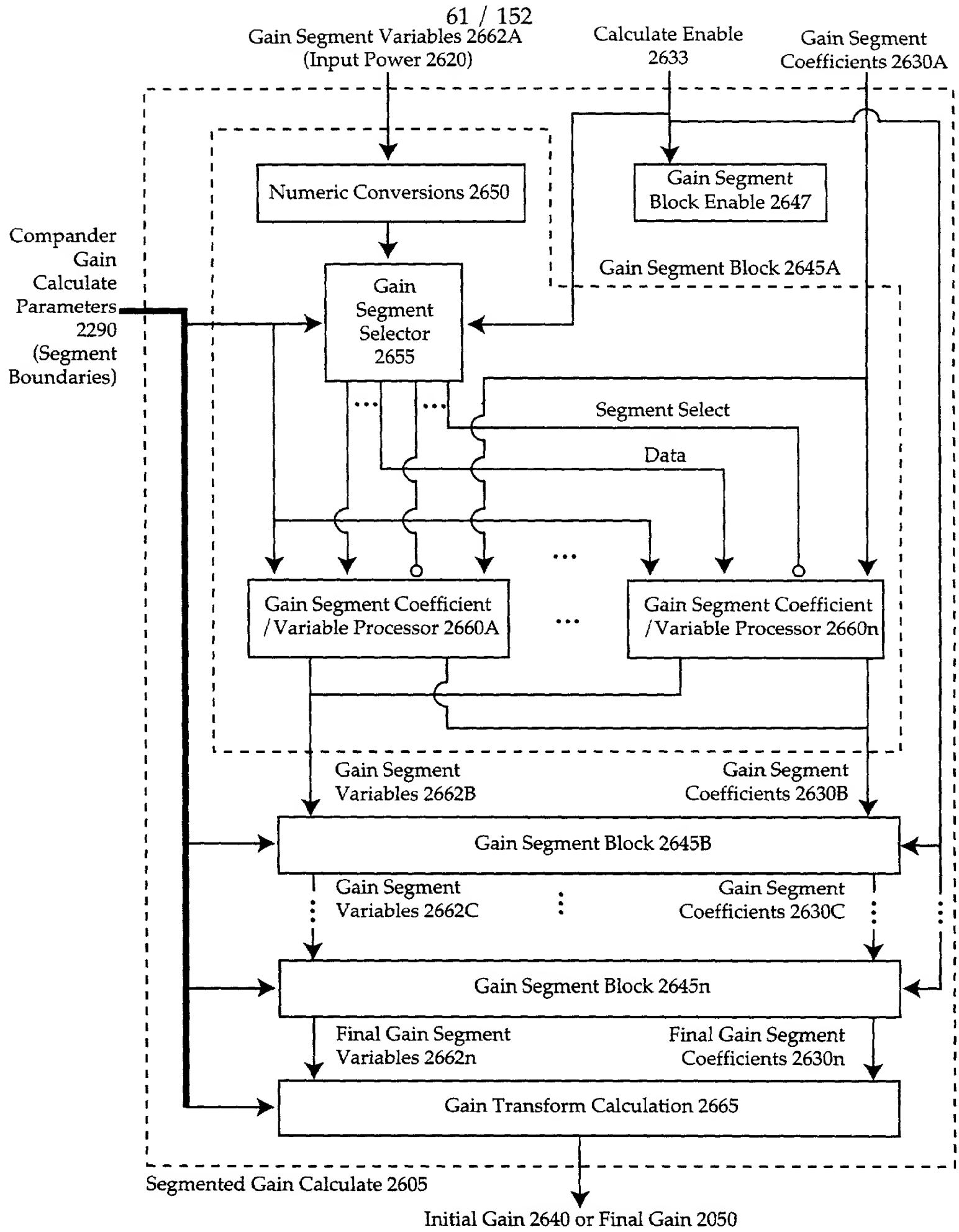


FIG. 26C

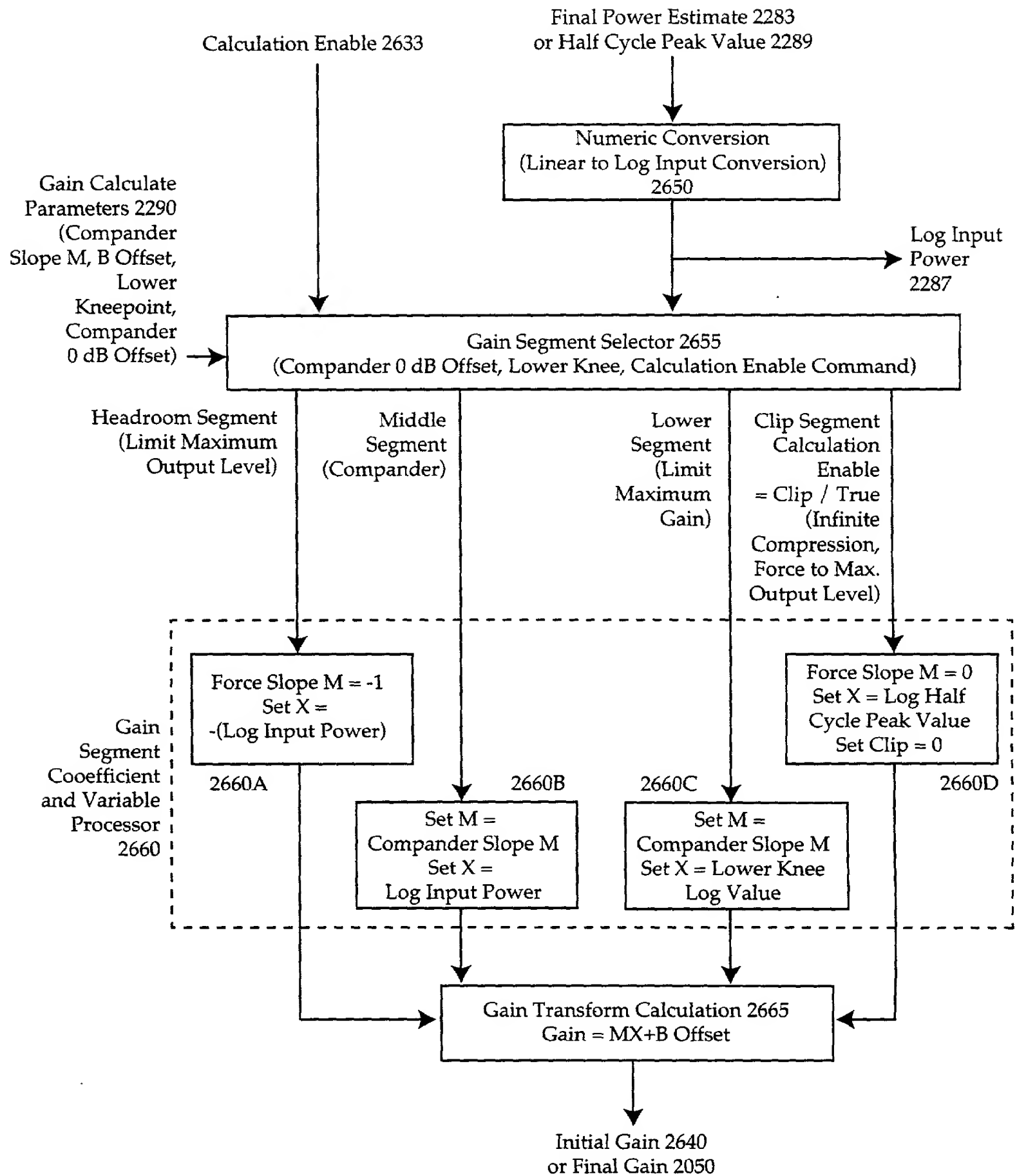


FIG. 26D

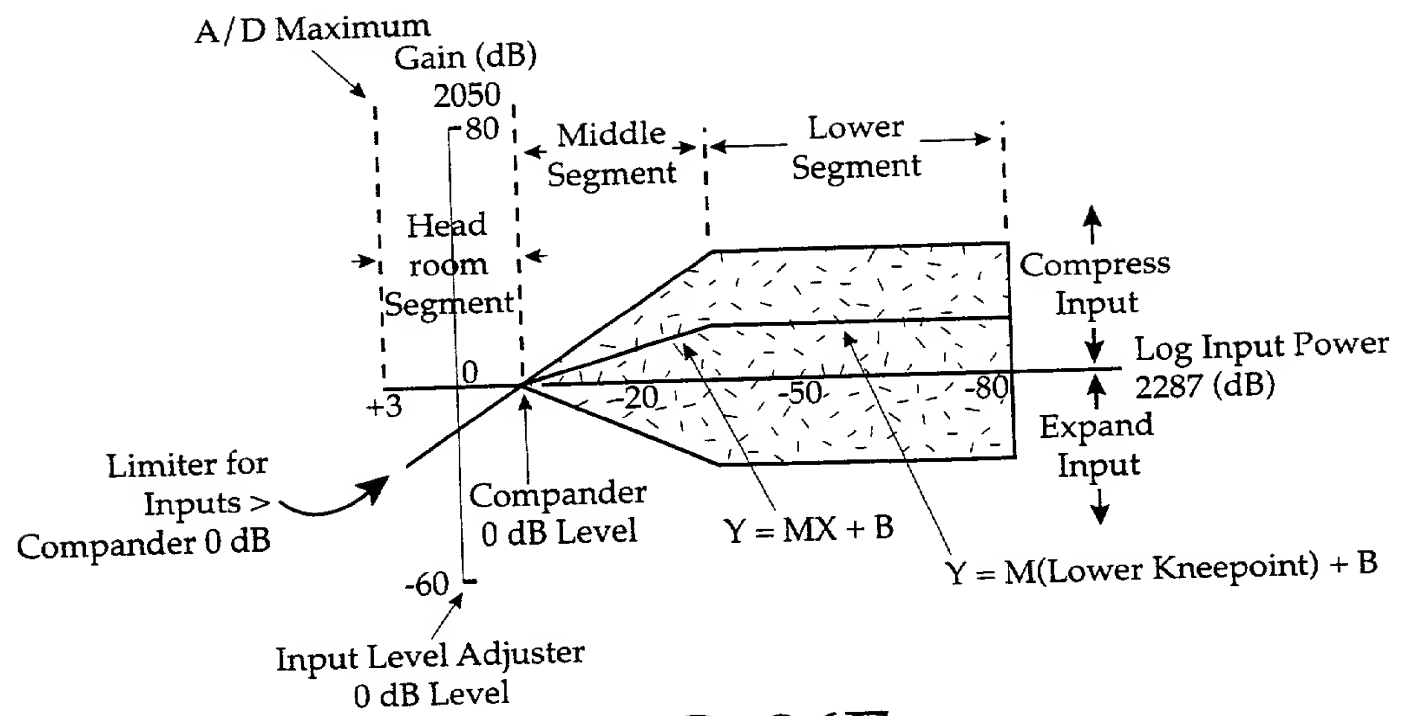
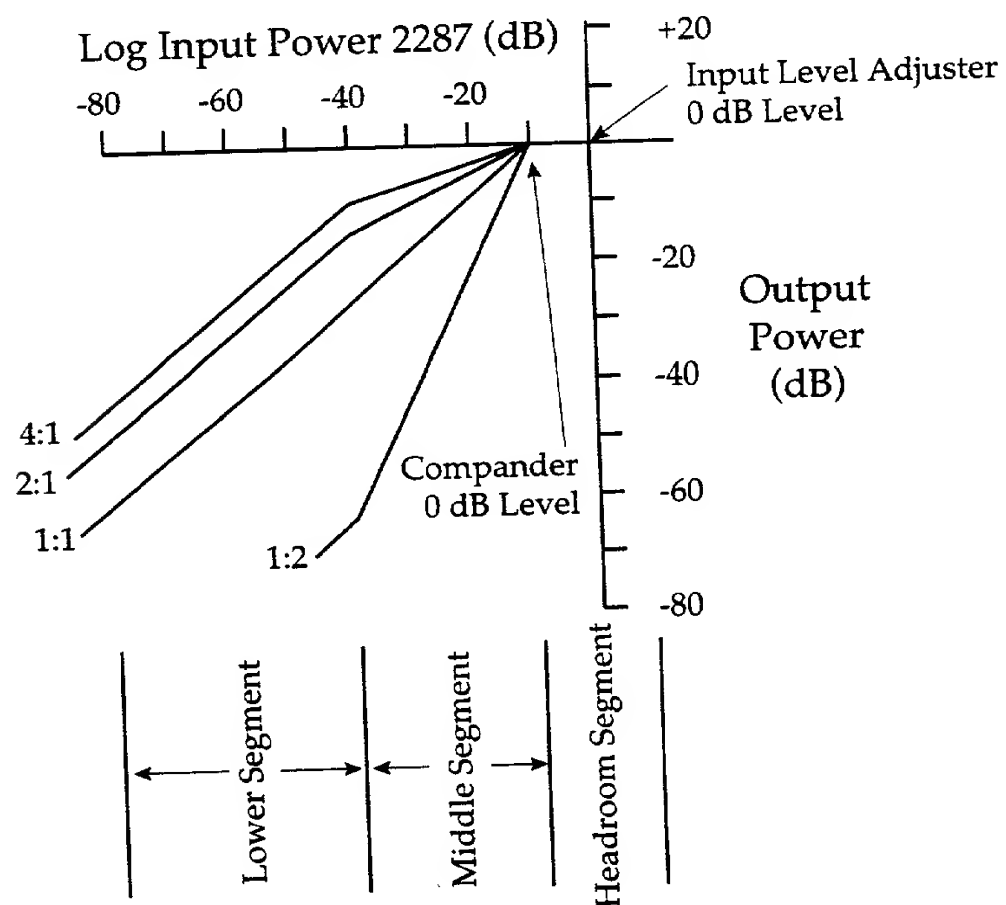


FIG. 26E



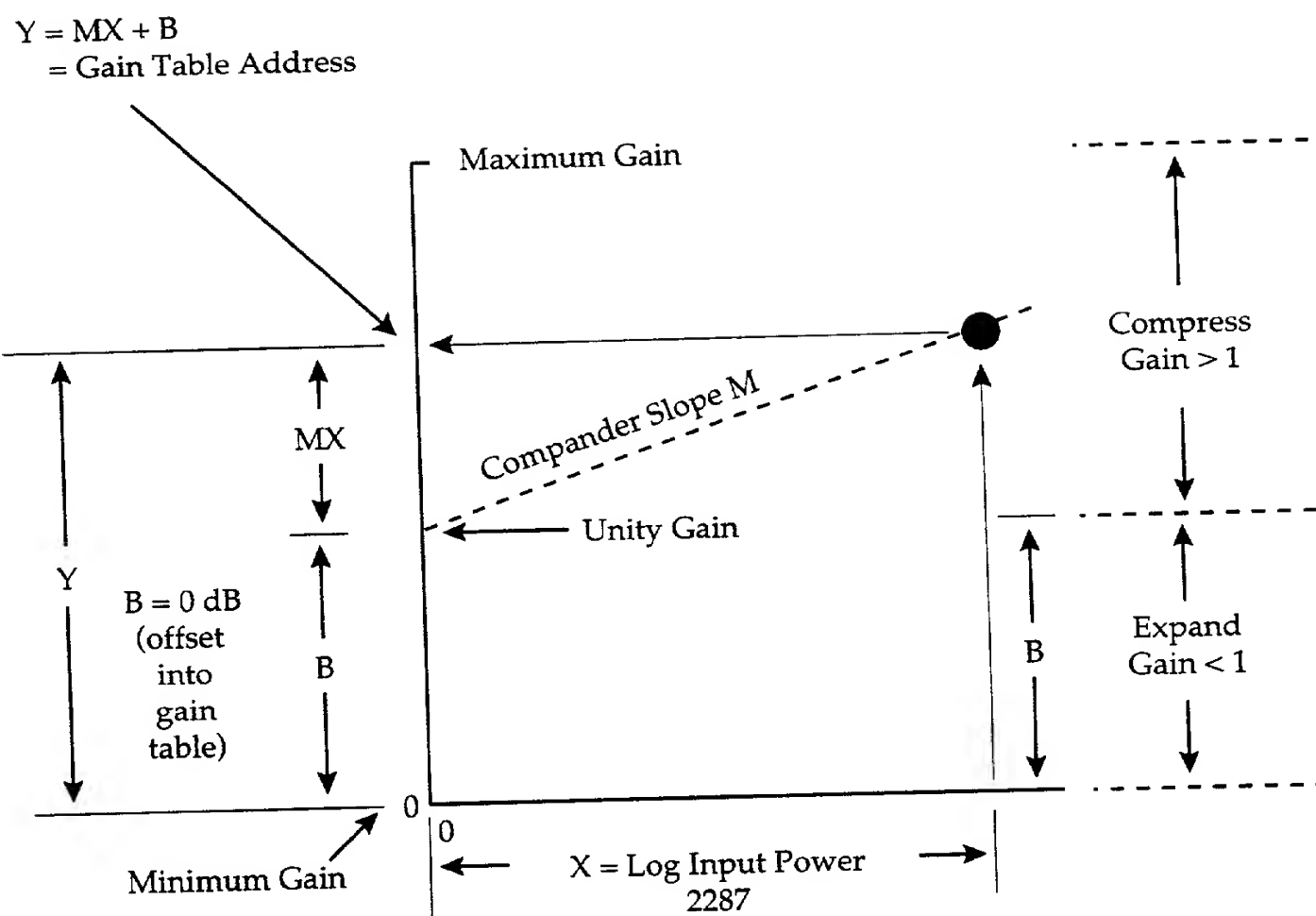


FIG. 26G

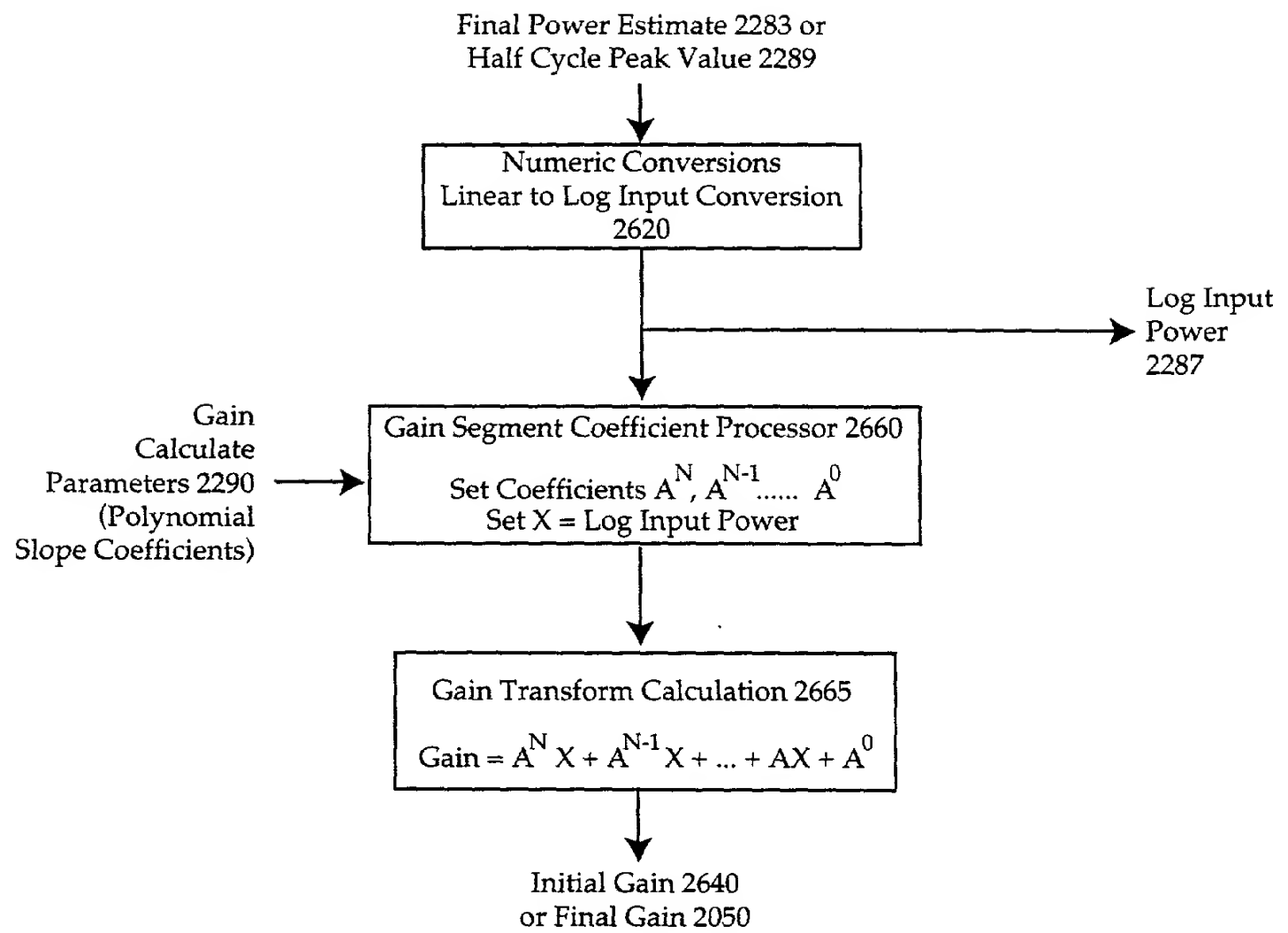


FIG. 26H

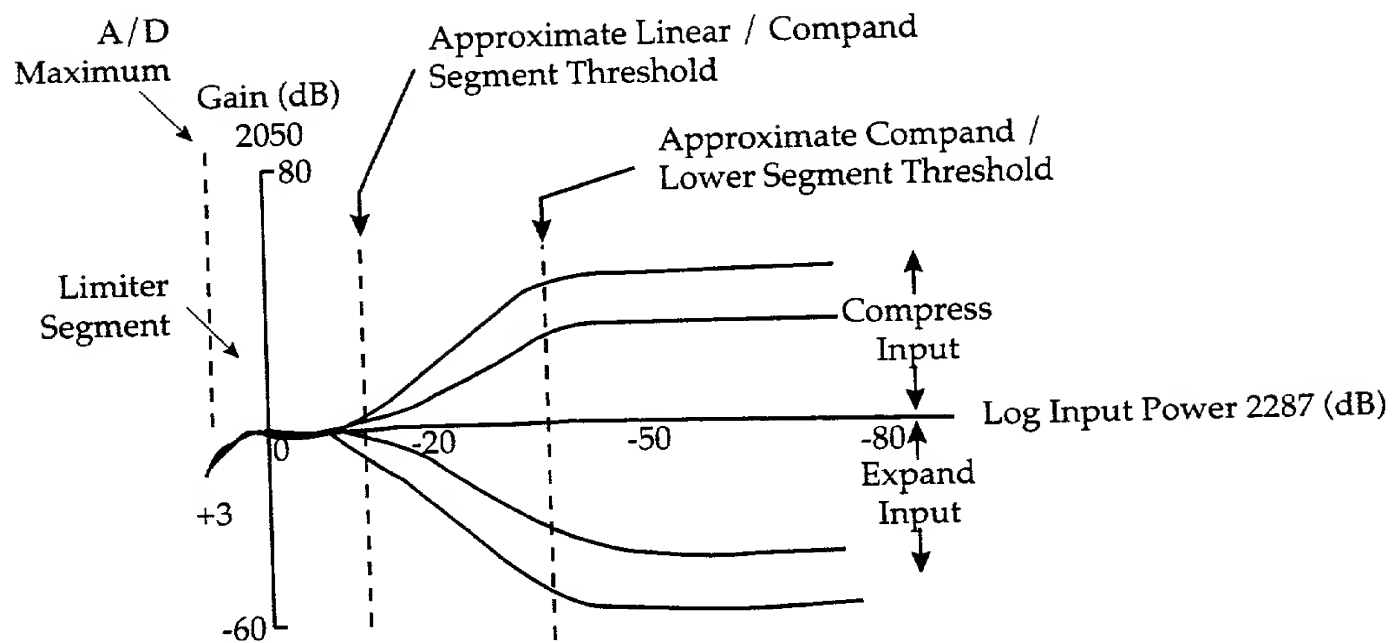


FIG. 26I

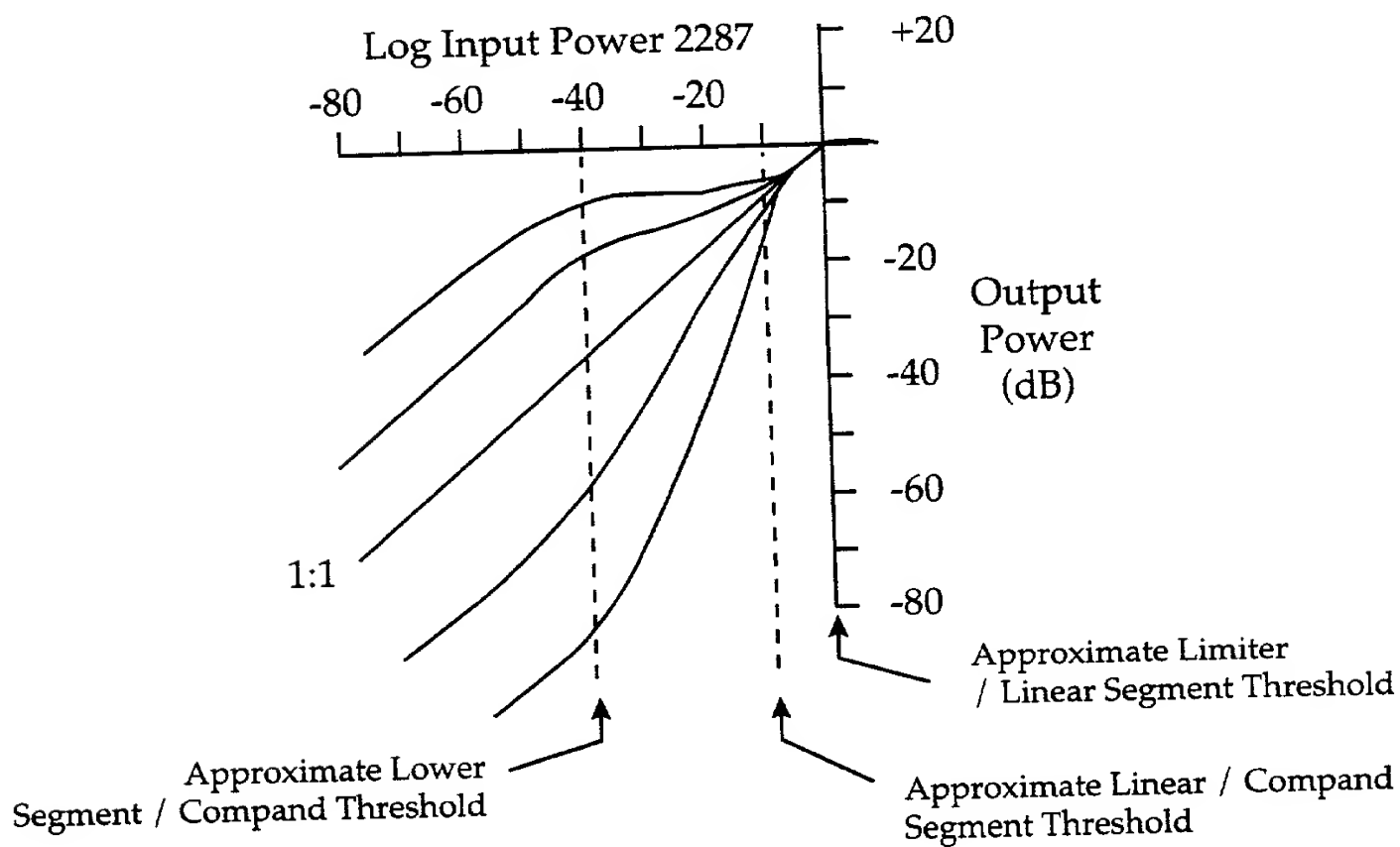


FIG. 26J

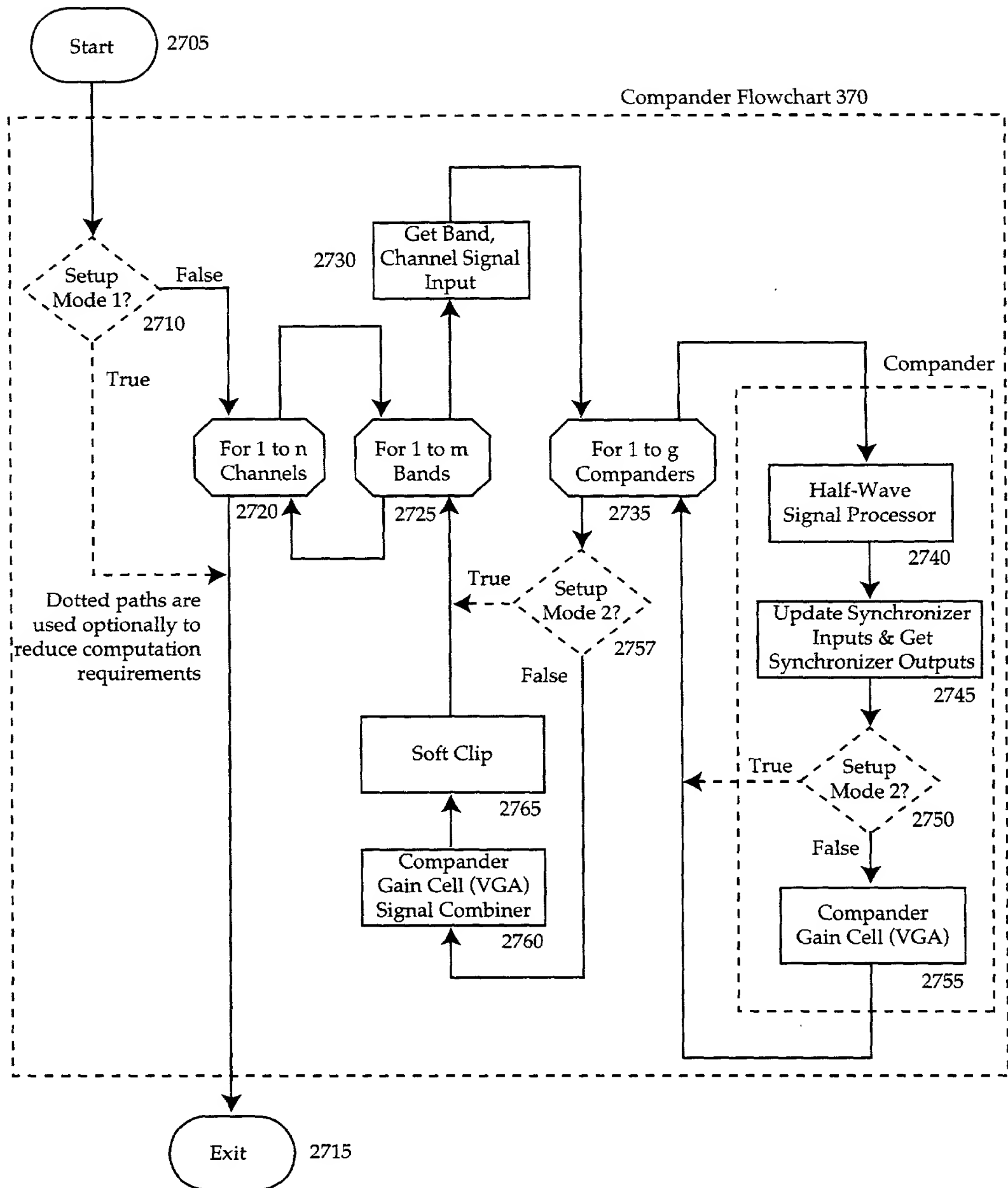


FIG. 27A

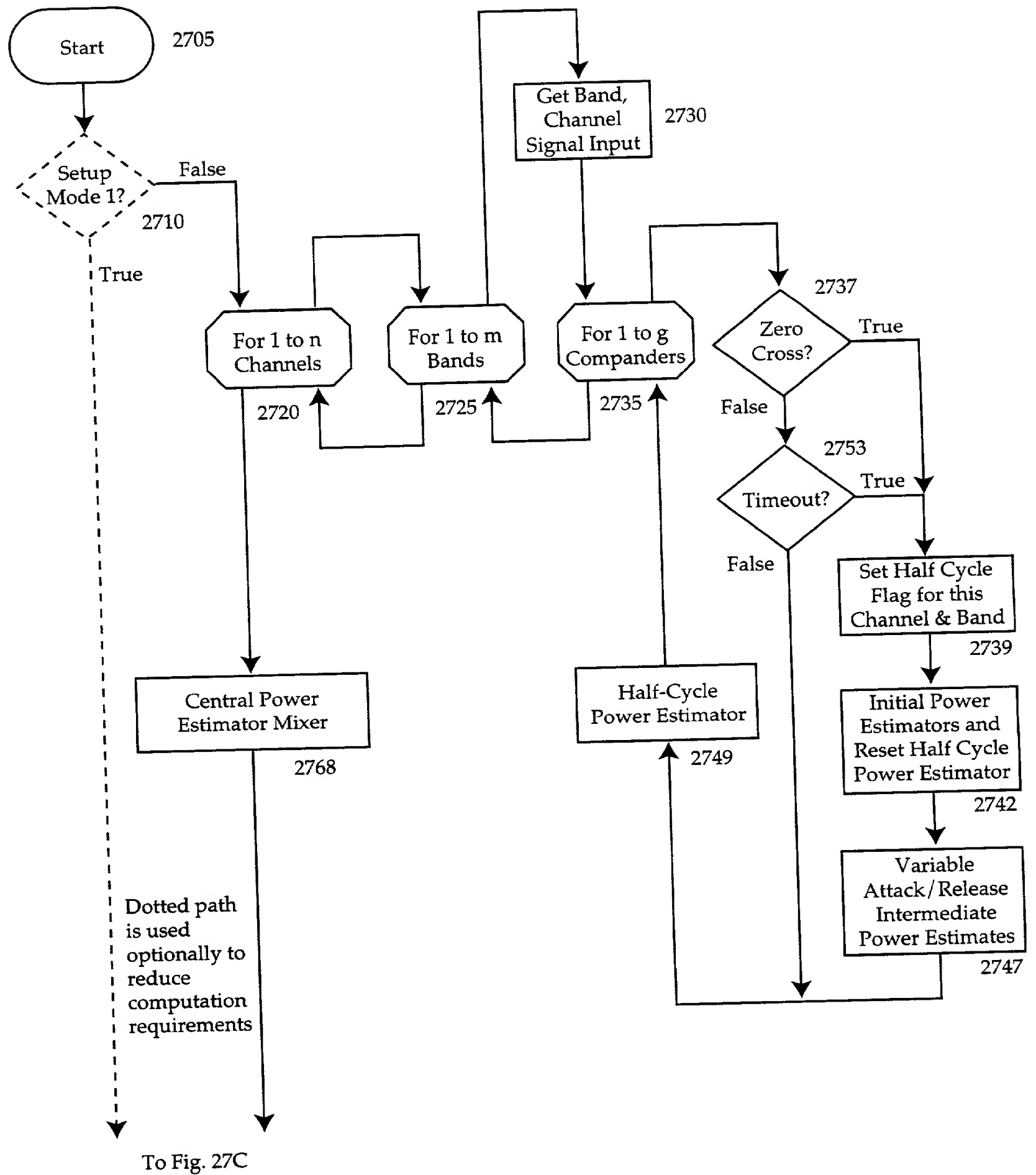


FIG. 27B

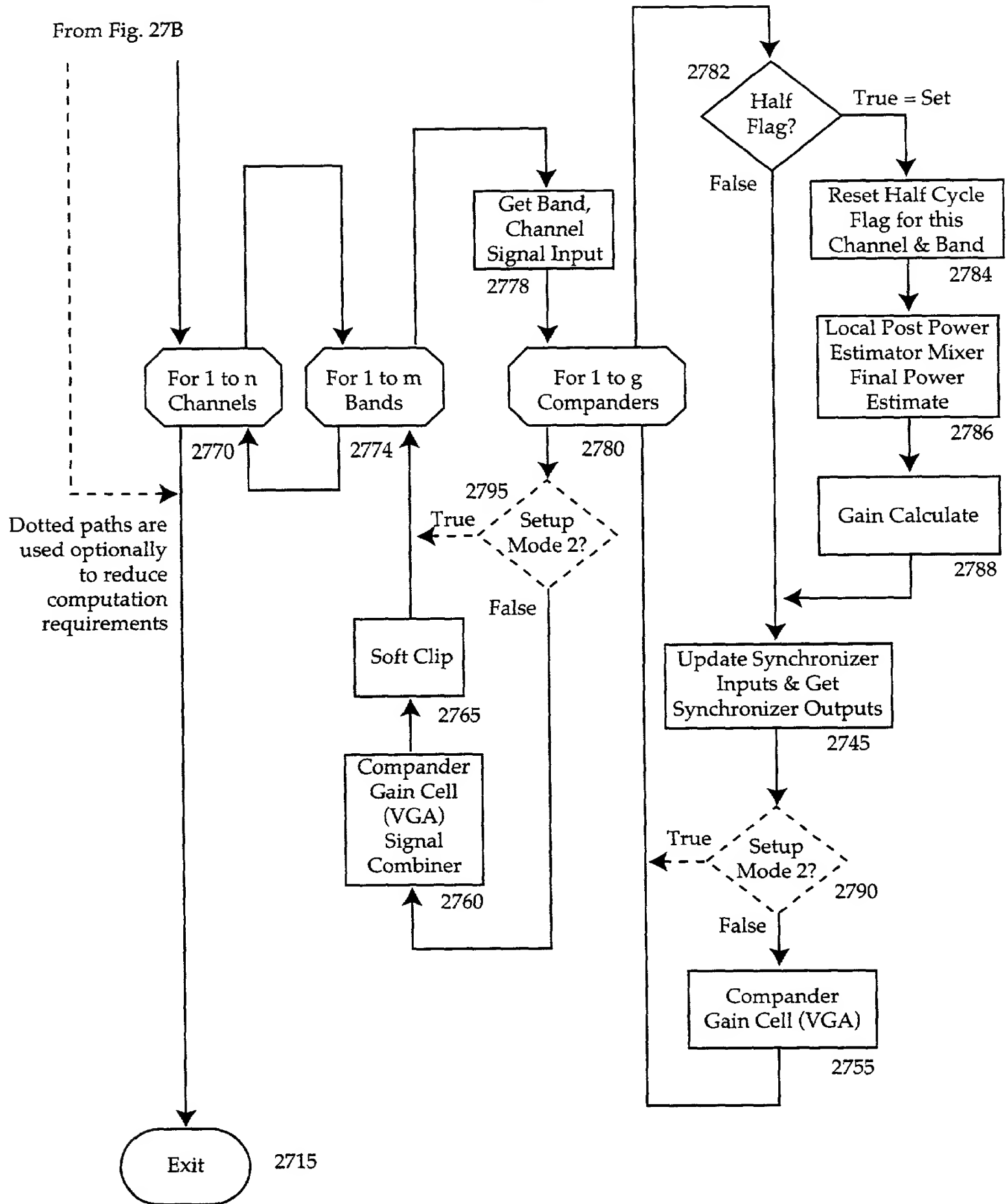


FIG. 27C

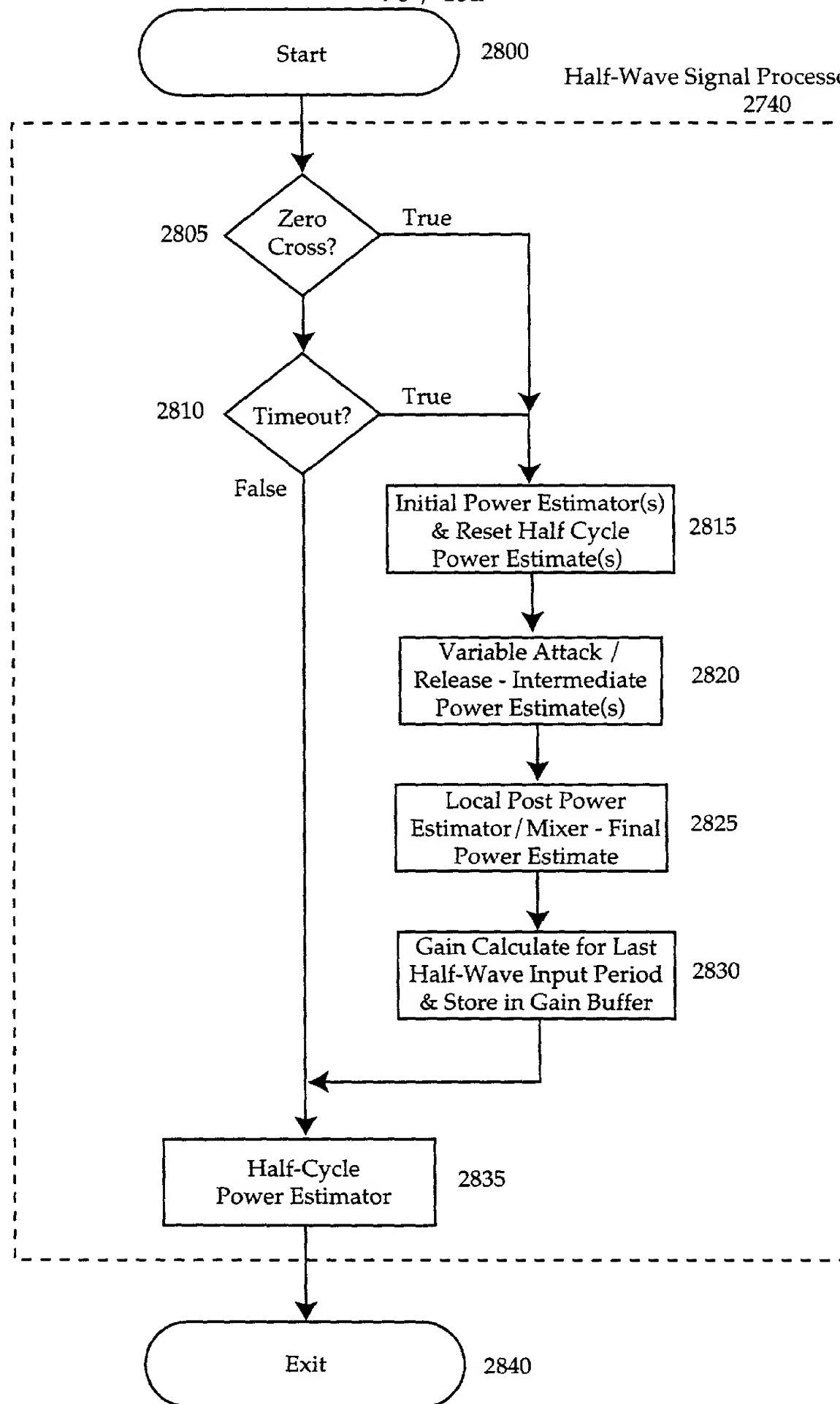
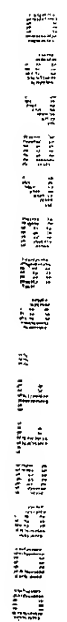


FIG. 28



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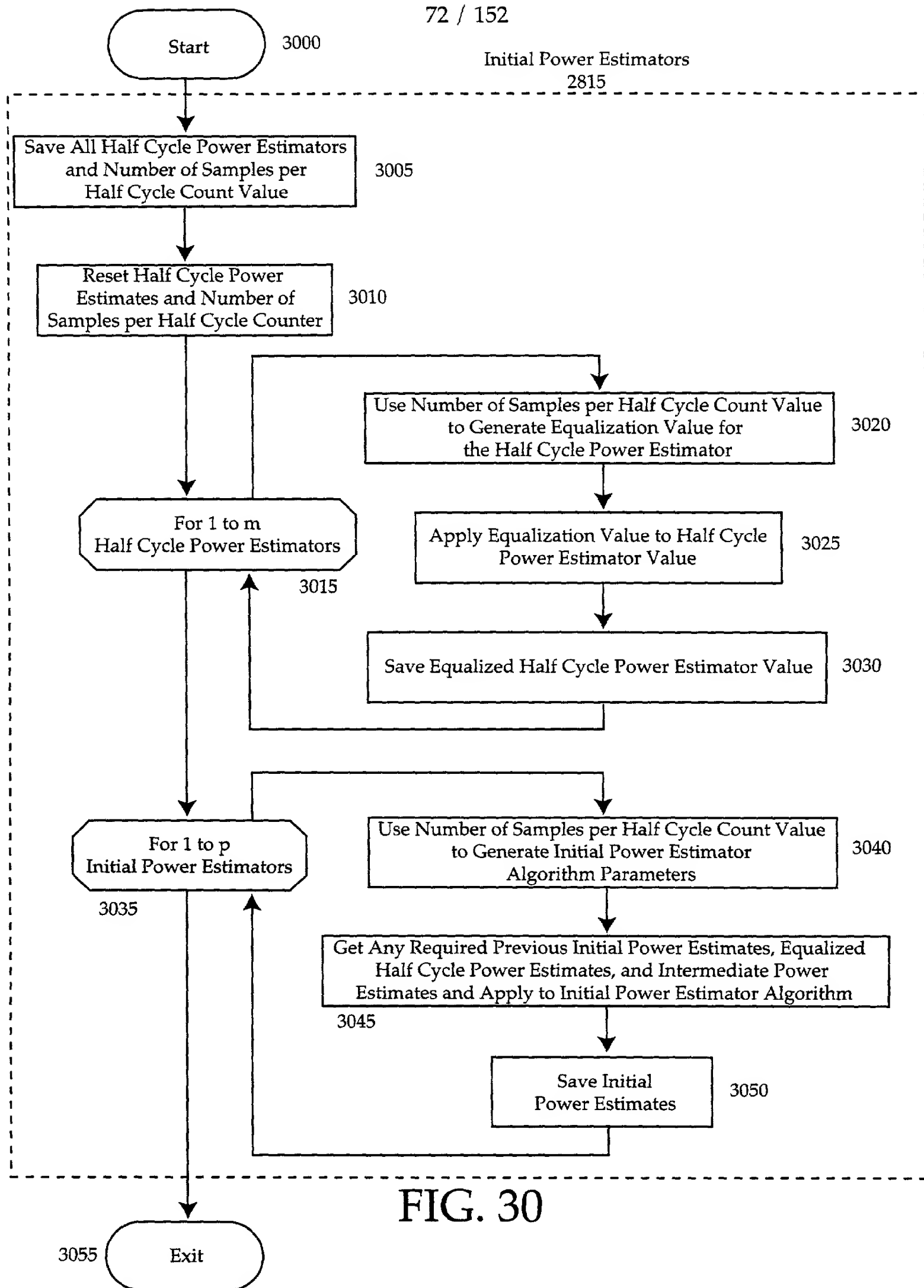
Initial Power Estimators
2815

FIG. 30

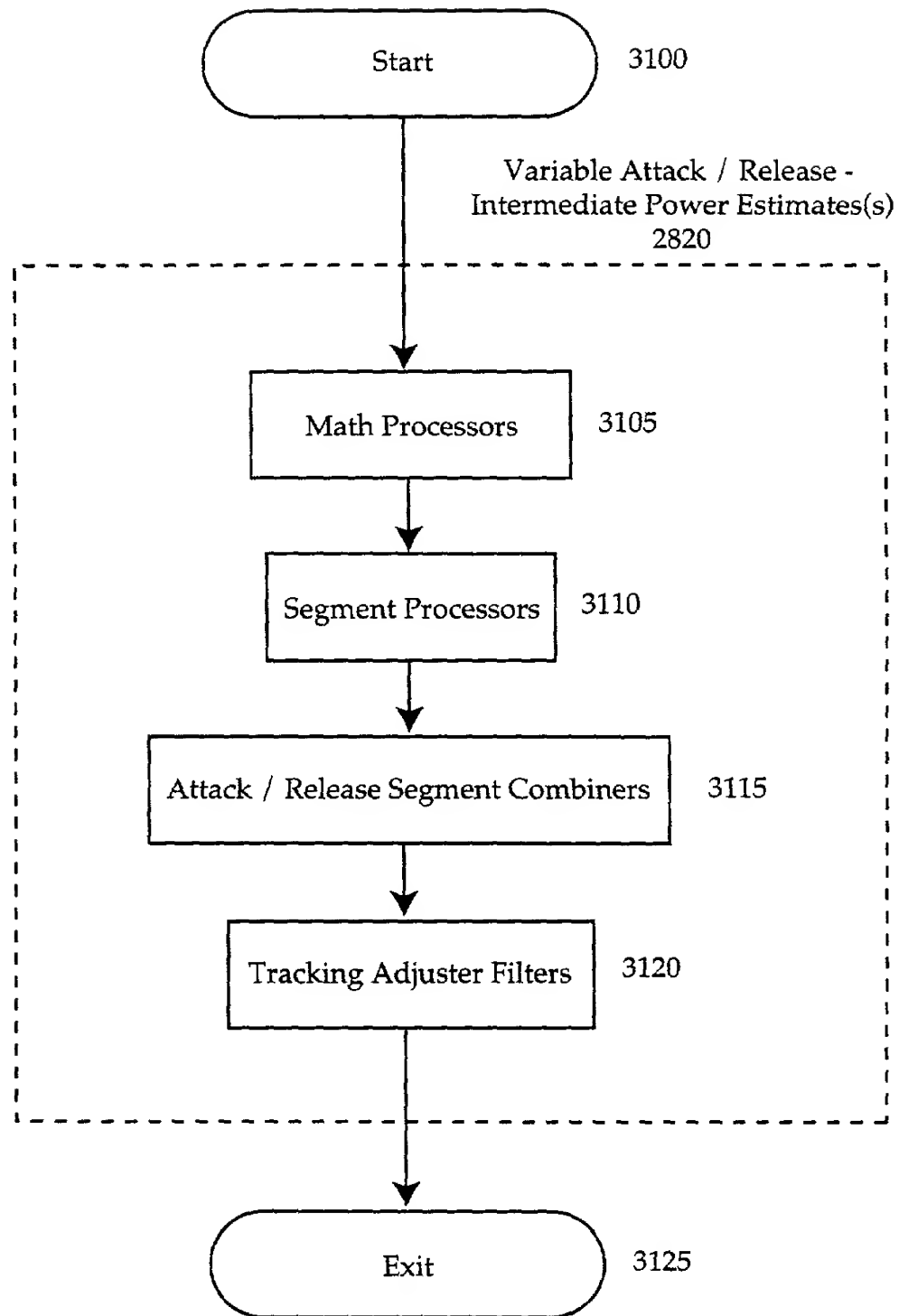


FIG. 31

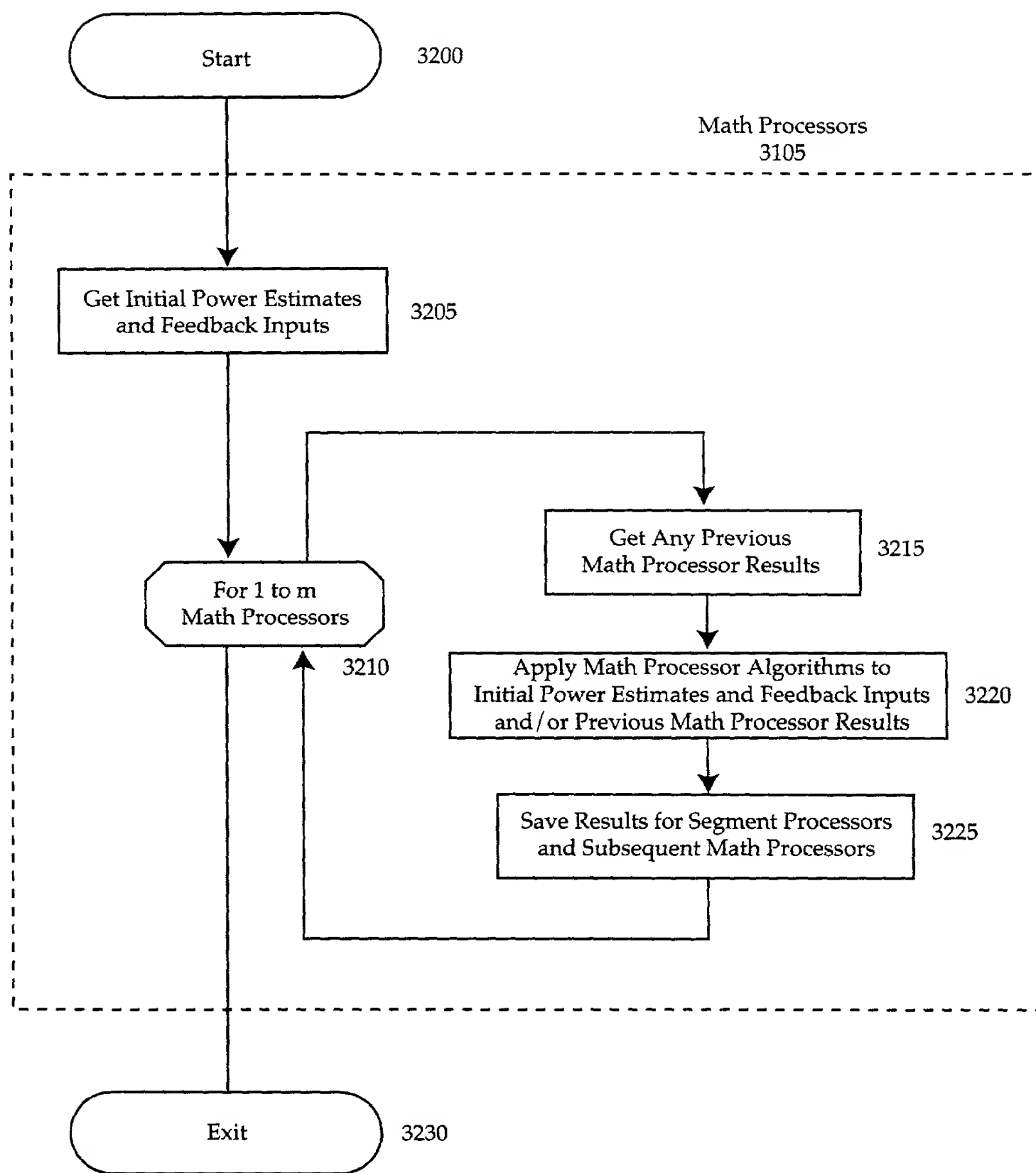


FIG. 32

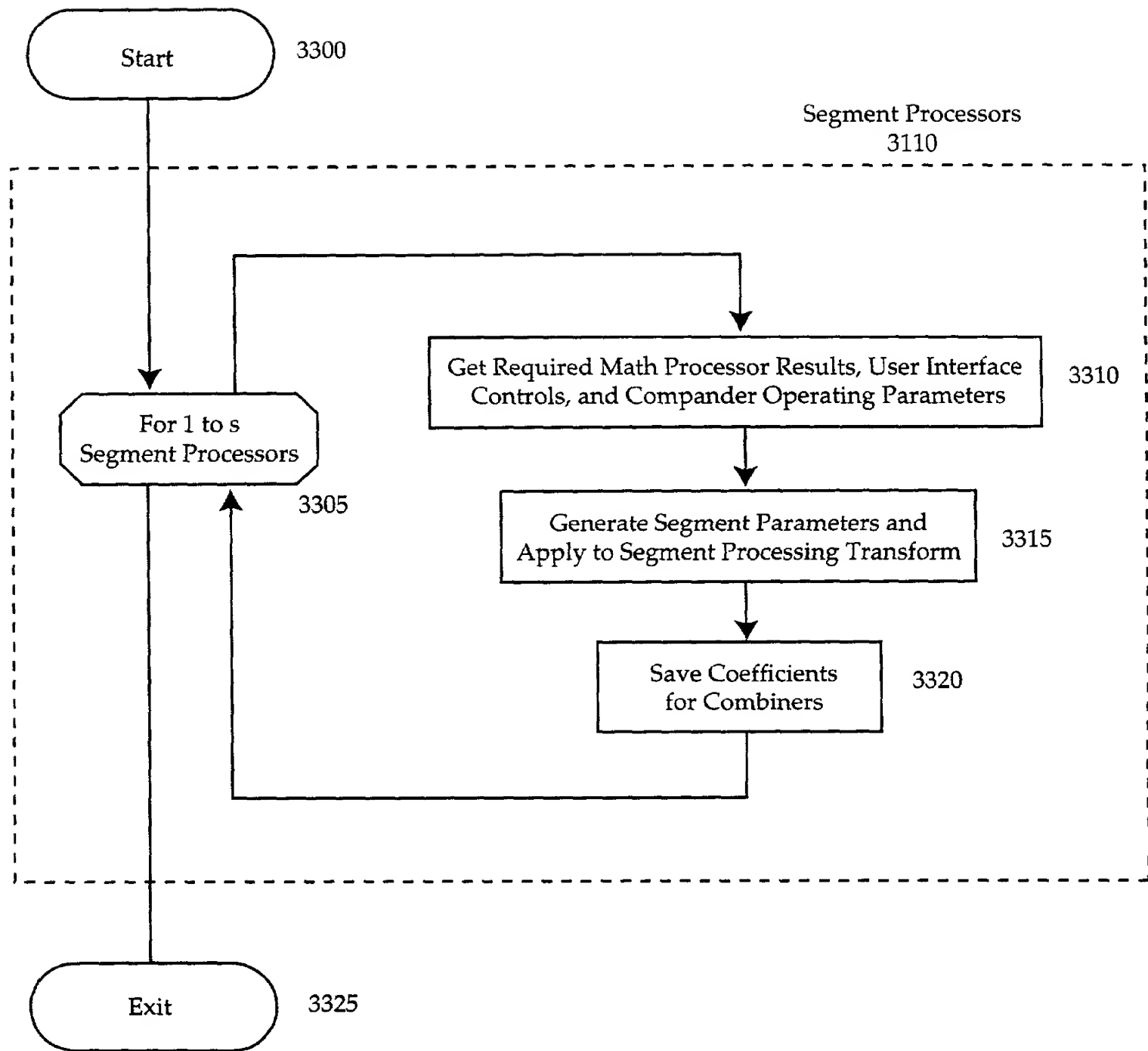


FIG. 33

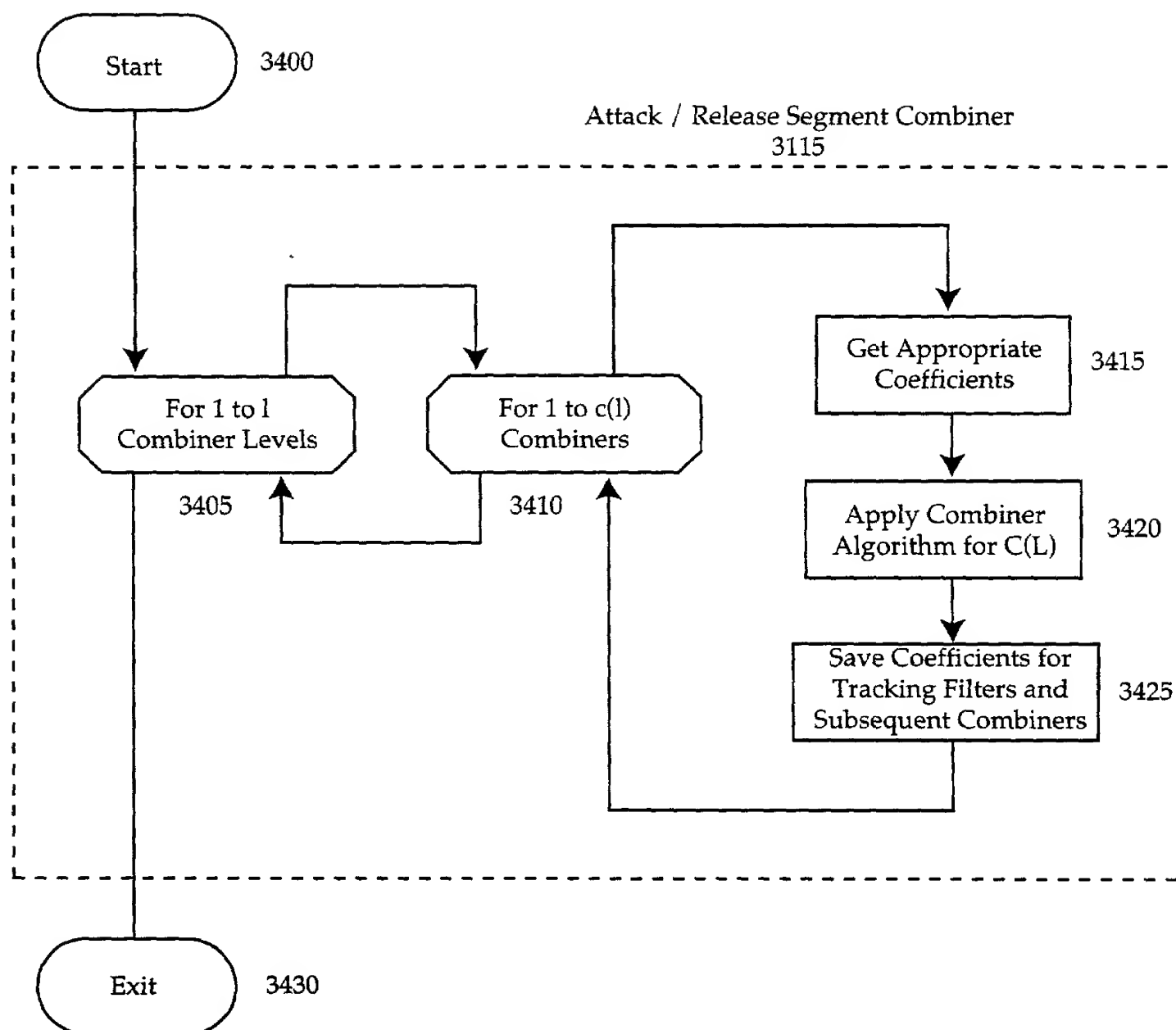
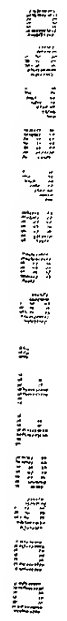


FIG. 34



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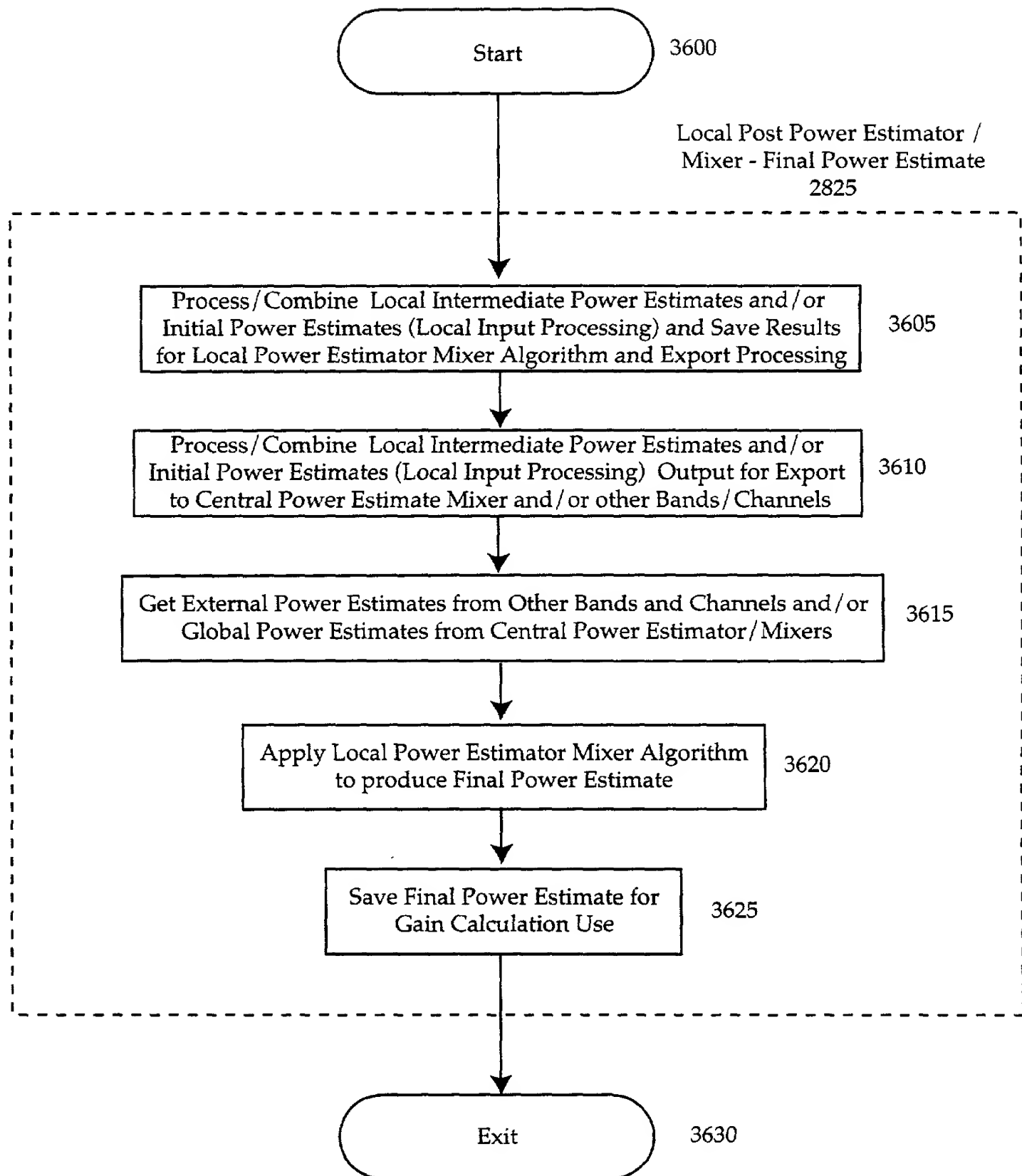


FIG. 36

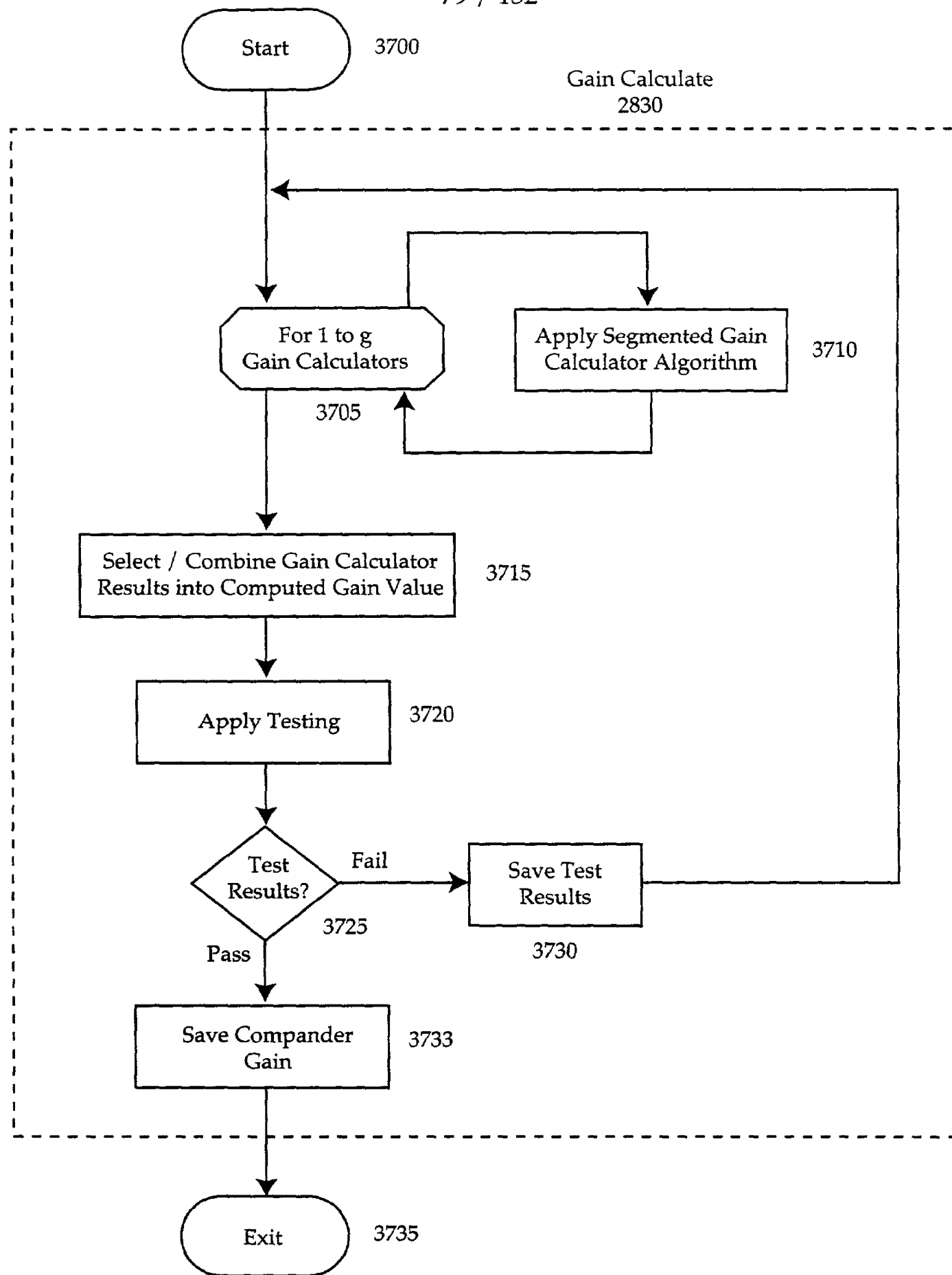


FIG. 37A

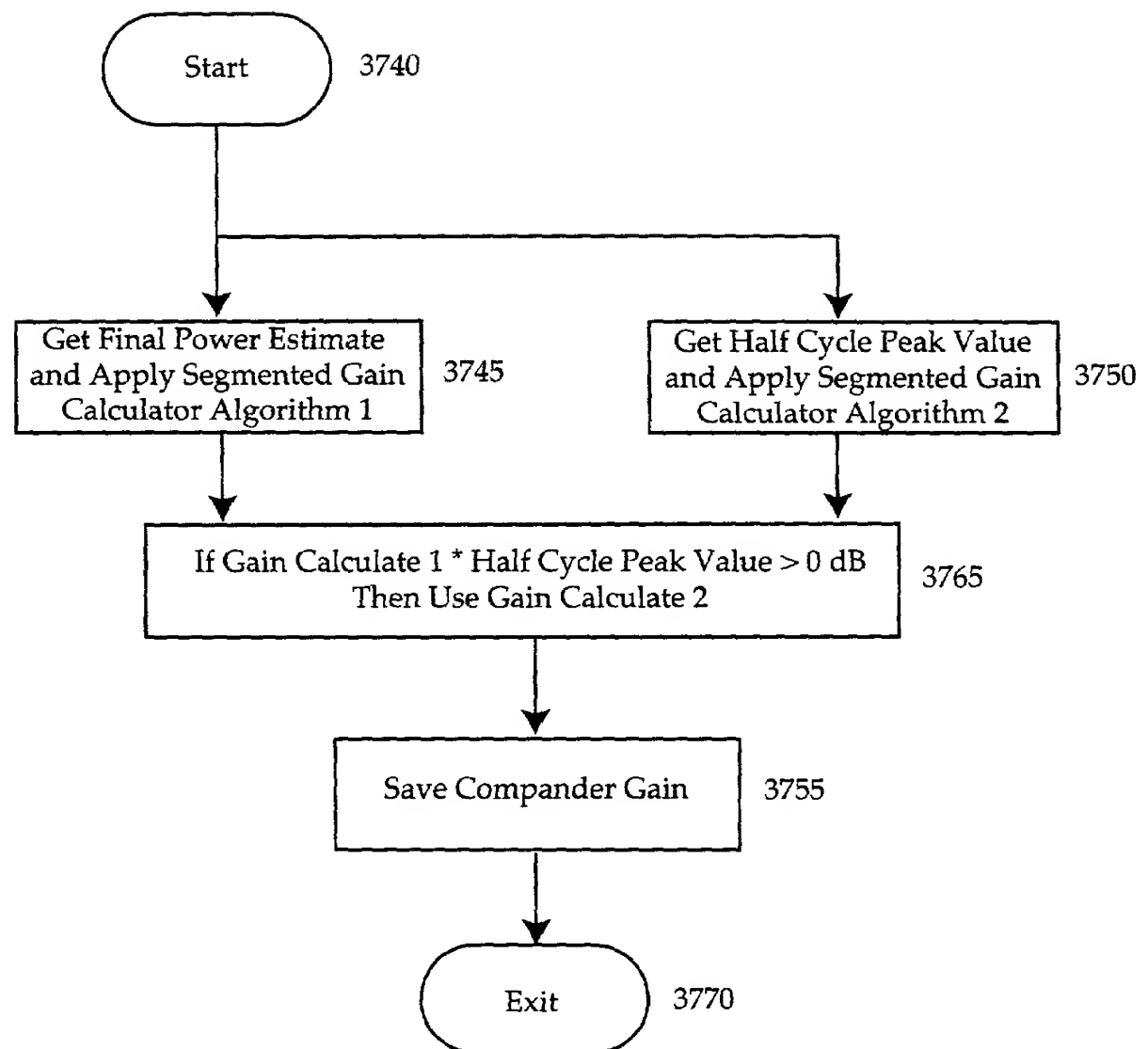


FIG. 37B

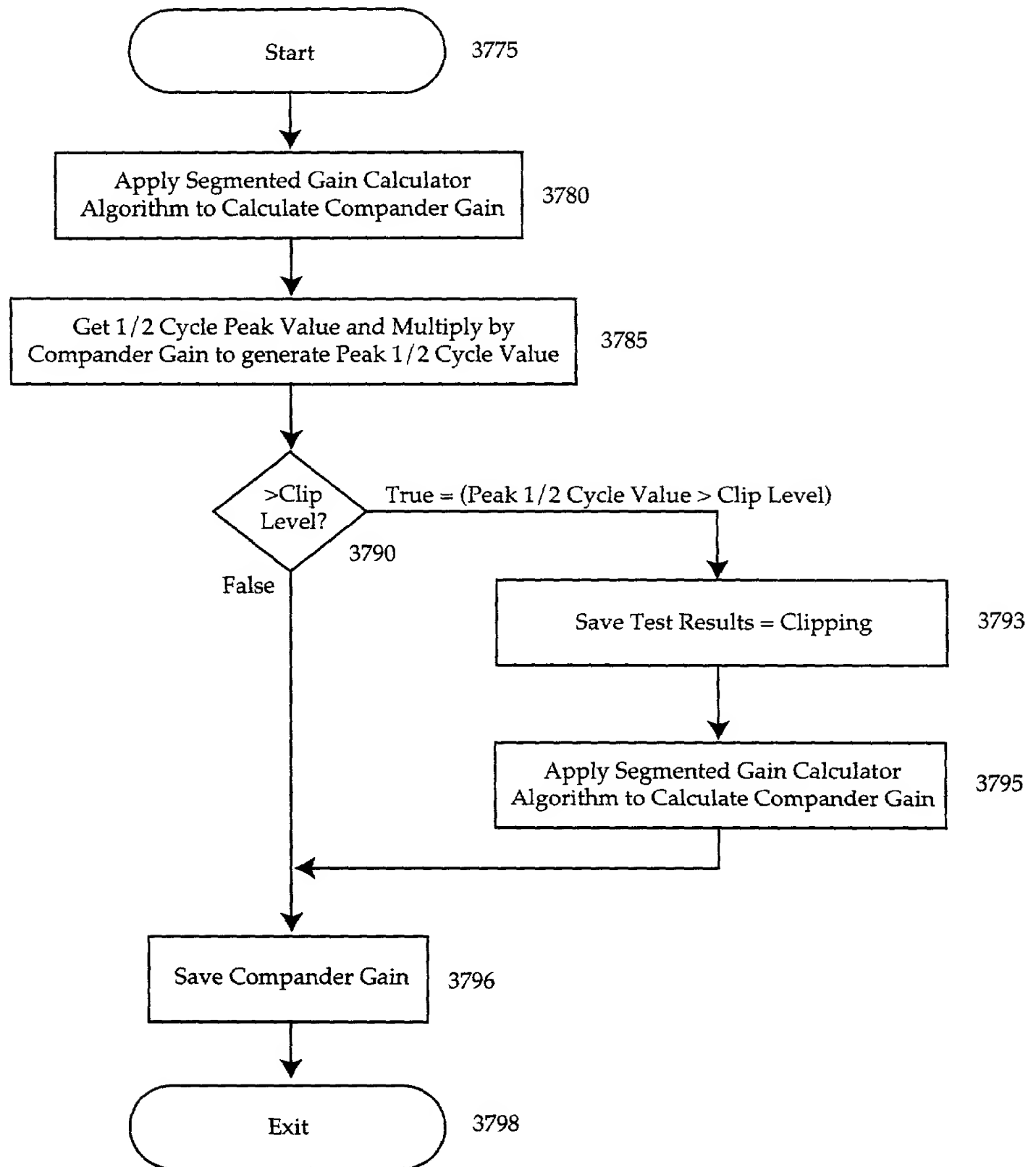


FIG. 37C

3800

Start

Segmented Gain Calculate Algorithm
3710, 3755, 3760, 3780, 3795

Get Gain Segment Input Variables (Final Power
Estimate, Input Power, Peak Value, or Previous
Segment and Gain Segment Variable Result

3805

Numeric
Conversion

3810

Get Test
Results

3815

Gain Segment Selector -
Determine the Segment that
Includes the Input and Test Results

3820

Get Gain Segment
Coefficients

3822

Gain Segment Coefficient and Variable Processor -
Produce Gain Transform Calculation Coefficients
and Variables Based on Determined Segment

3825

Last
Segment
Level?

3830

False

True

Gain Transform Calculation -Use Previous
Gain Segment Coefficient and Variable Processor
Results to Calculate a Gain Value

3835

Exit

3840

FIG. 38

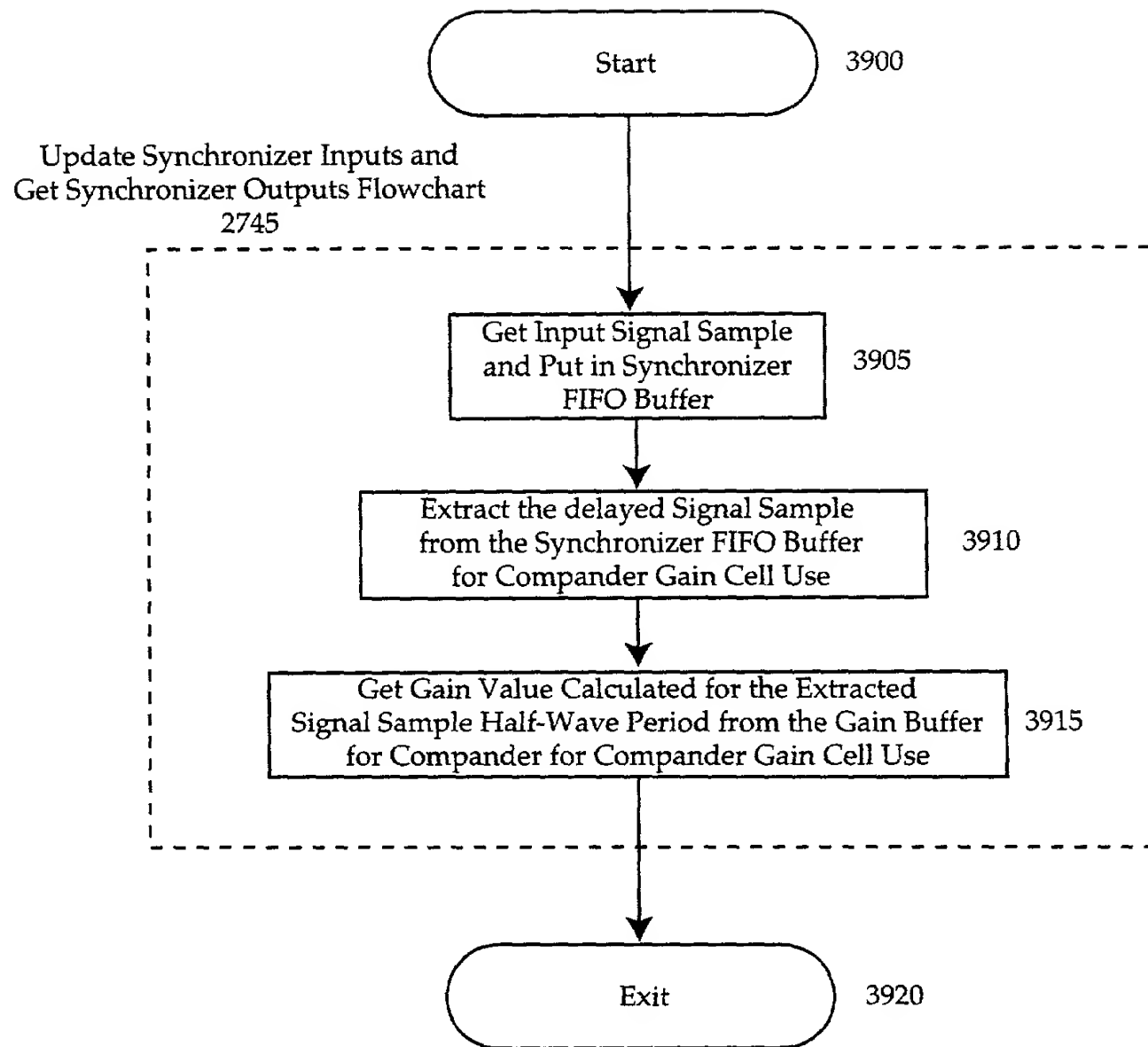


FIG. 39

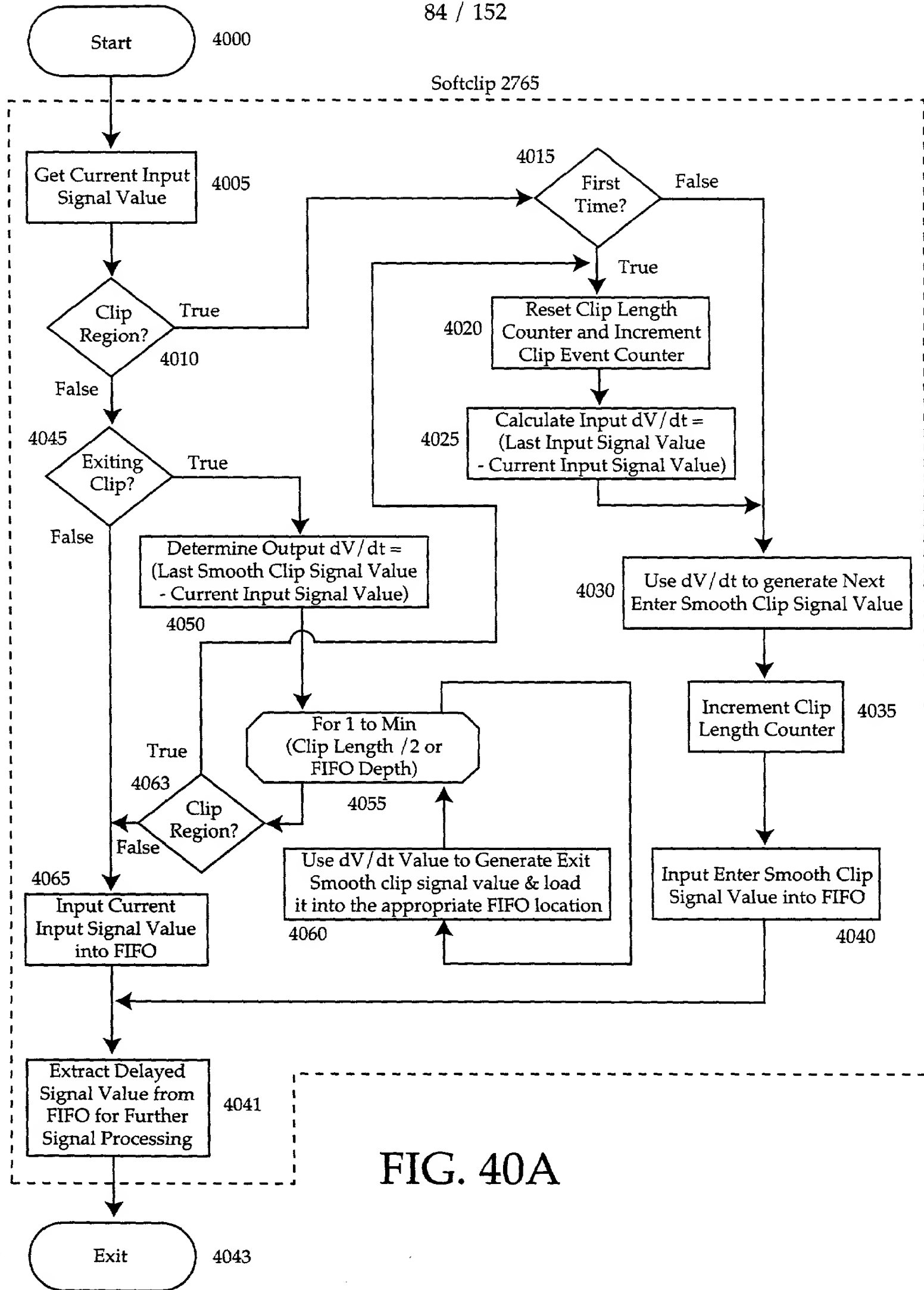


FIG. 40A

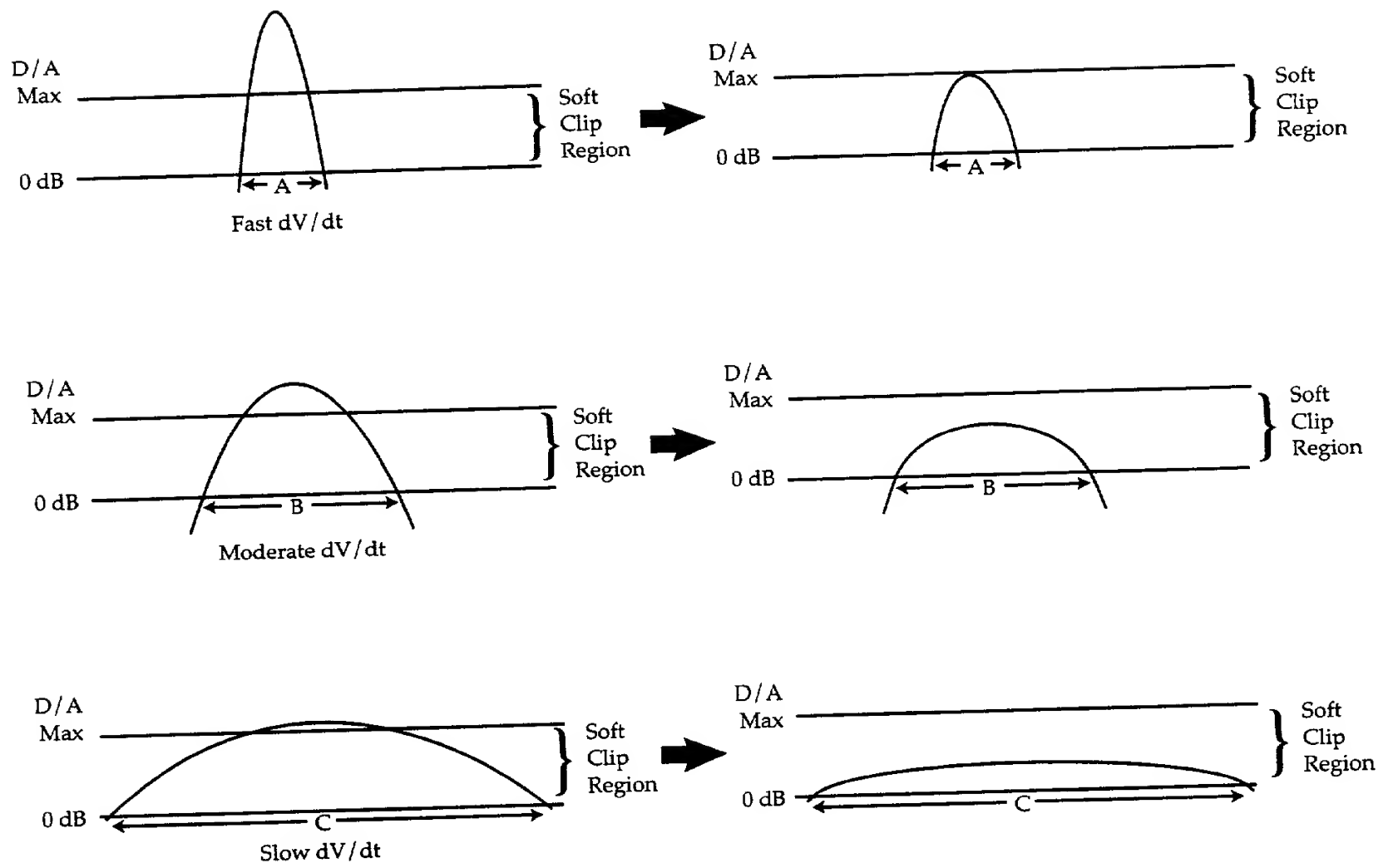


FIG. 40B

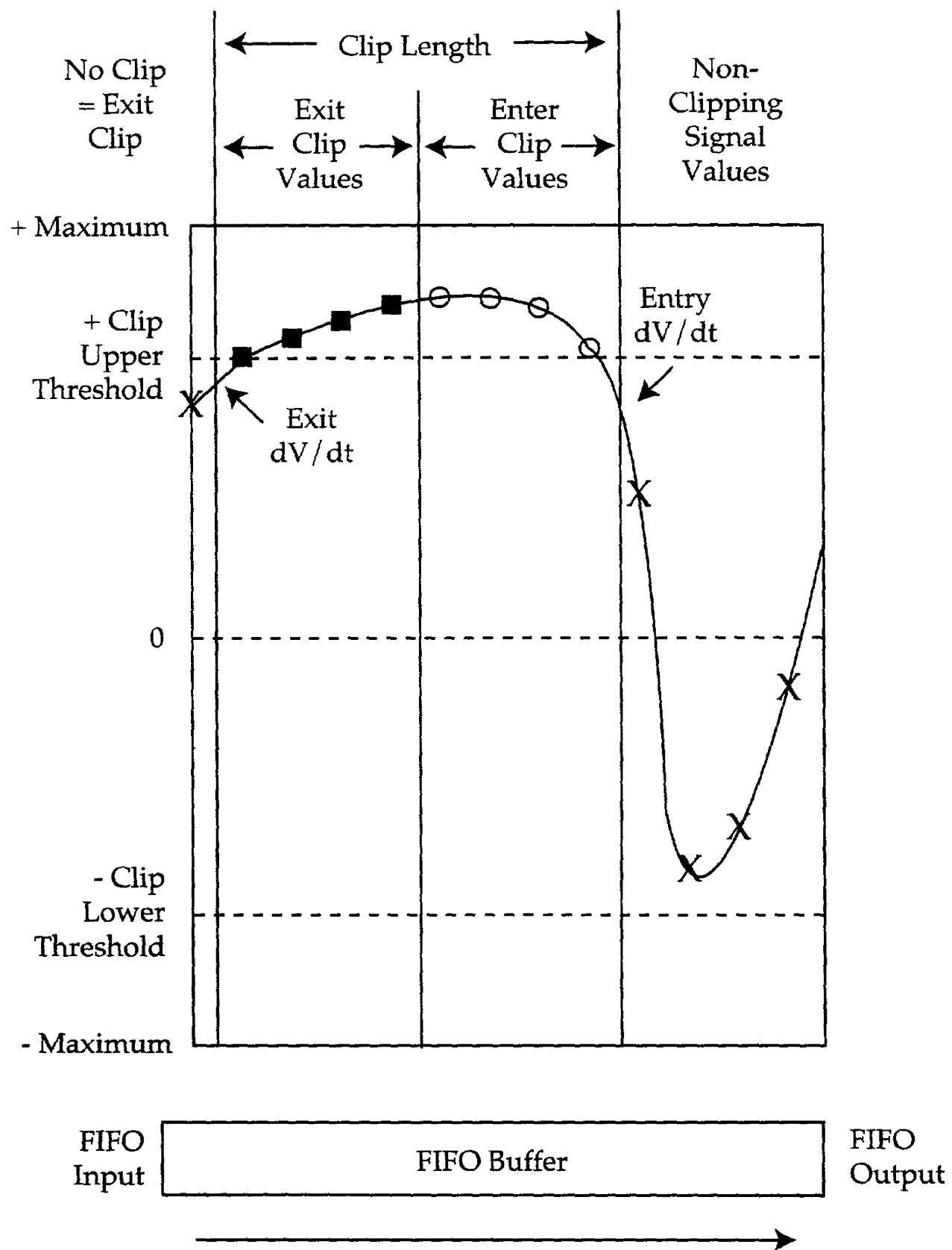


FIG. 40C

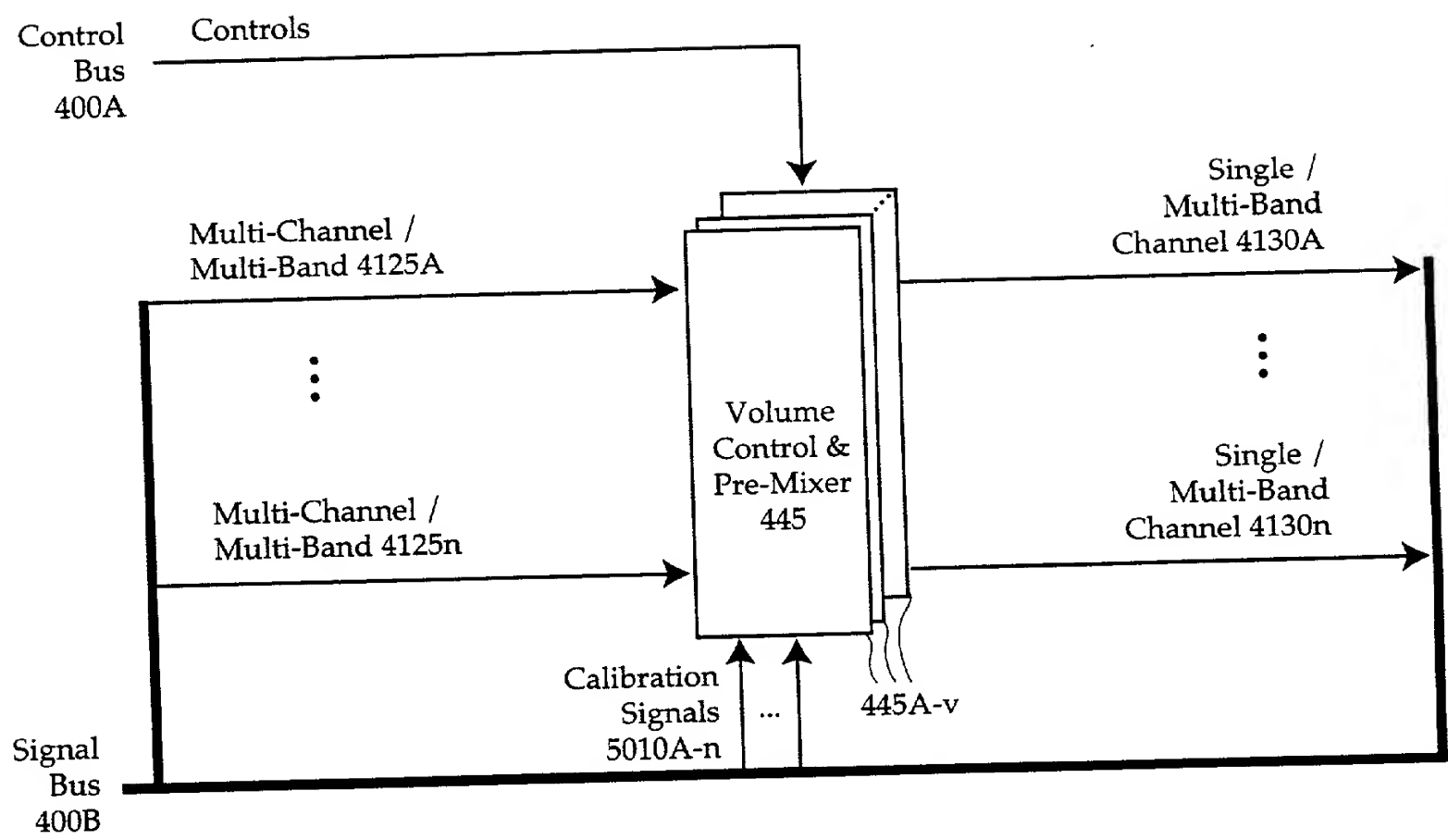


FIG. 41A

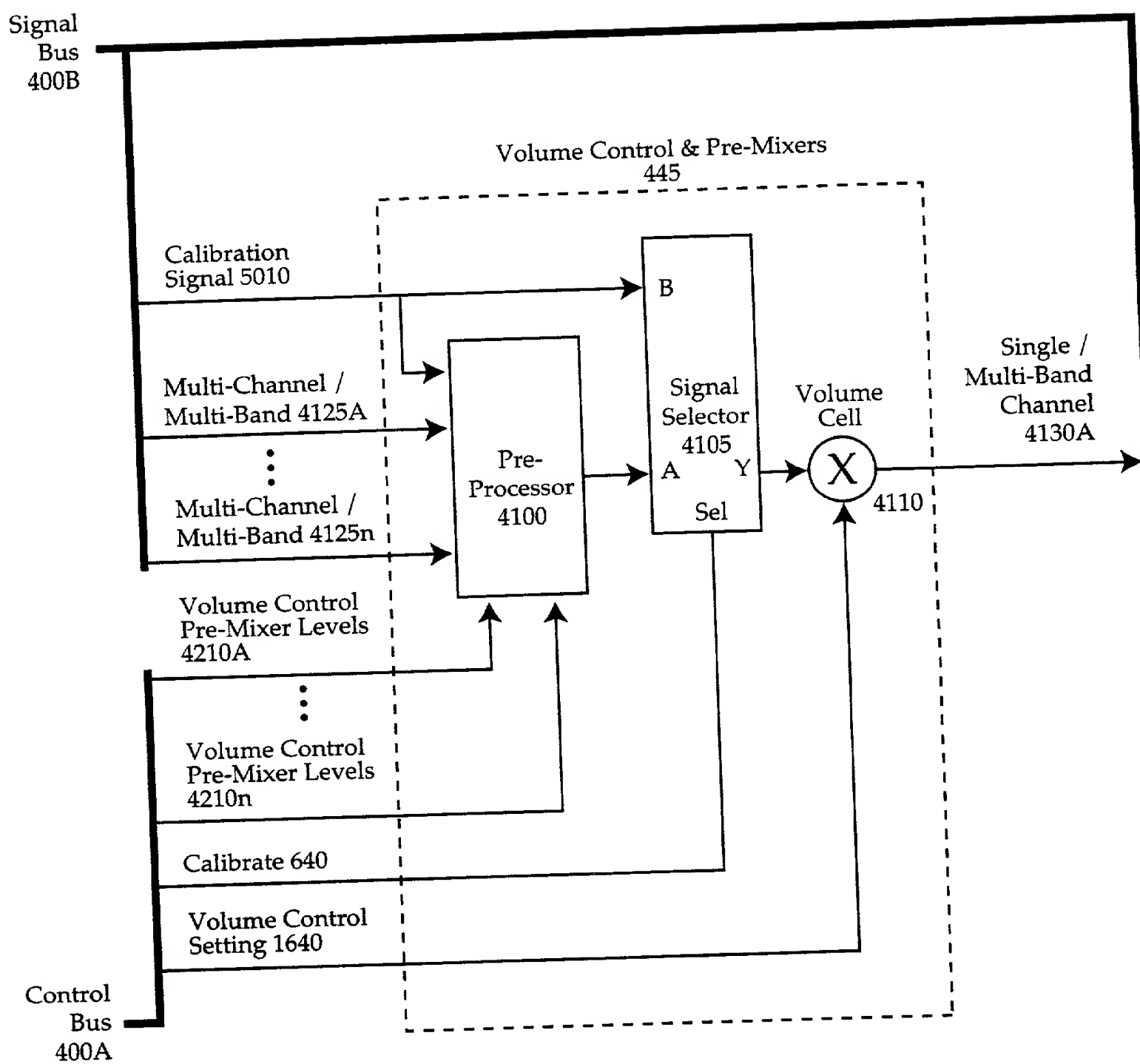


FIG. 41B

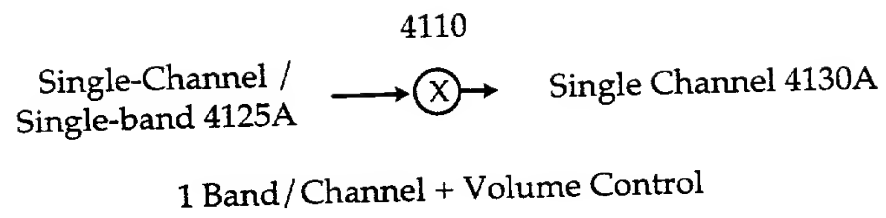


FIG. 42A

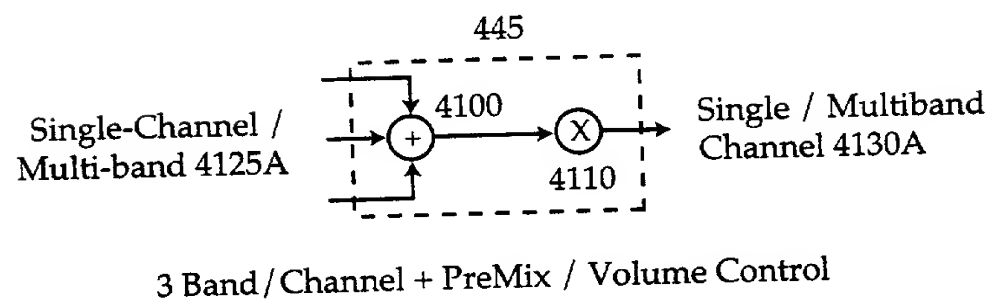


FIG. 42B

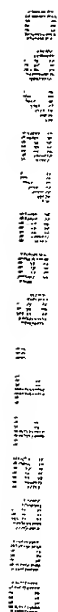


FIG. 42C

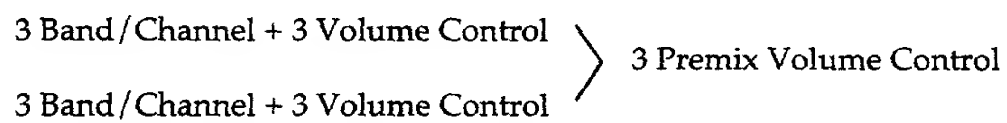


FIG. 42D

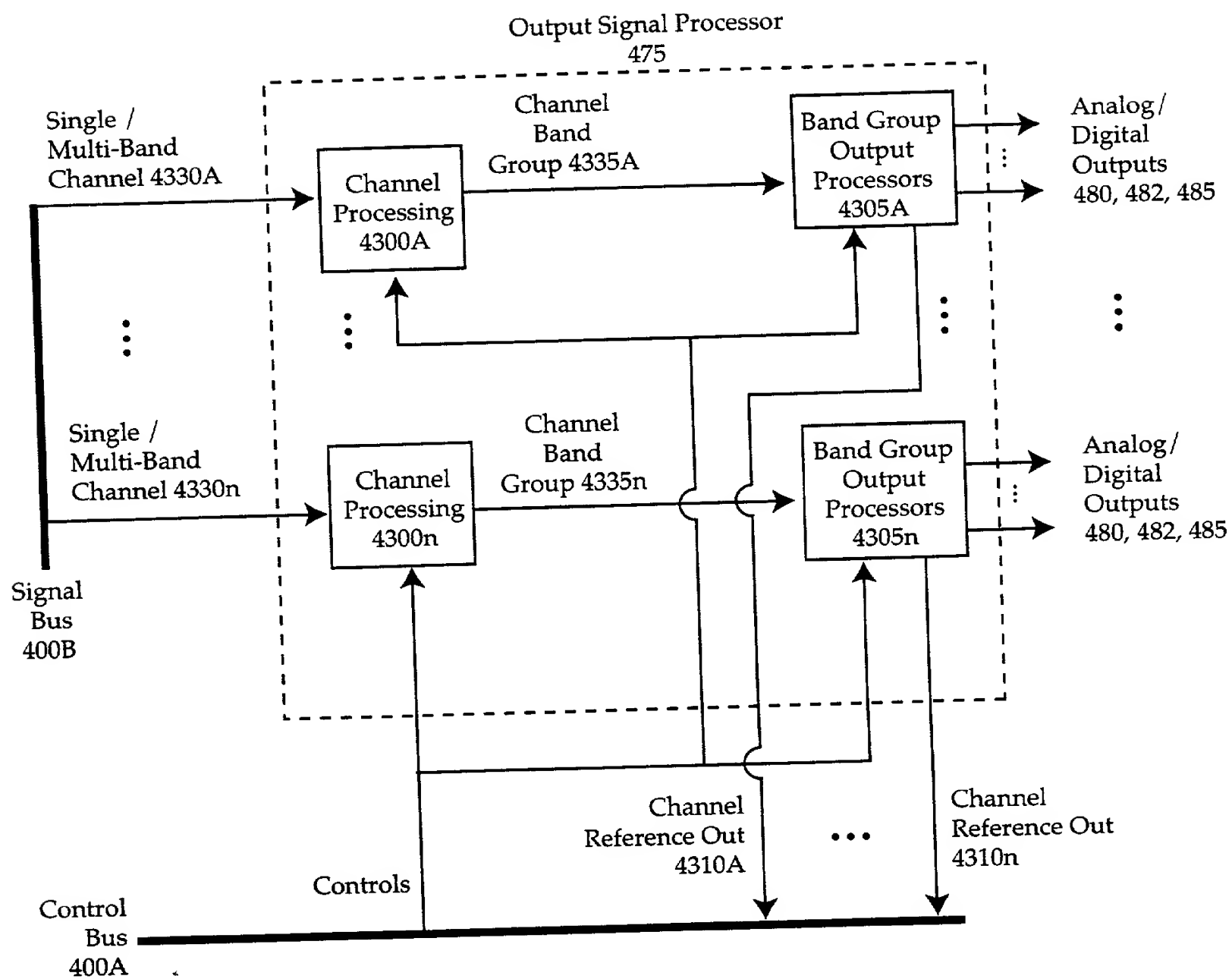


FIG. 43A

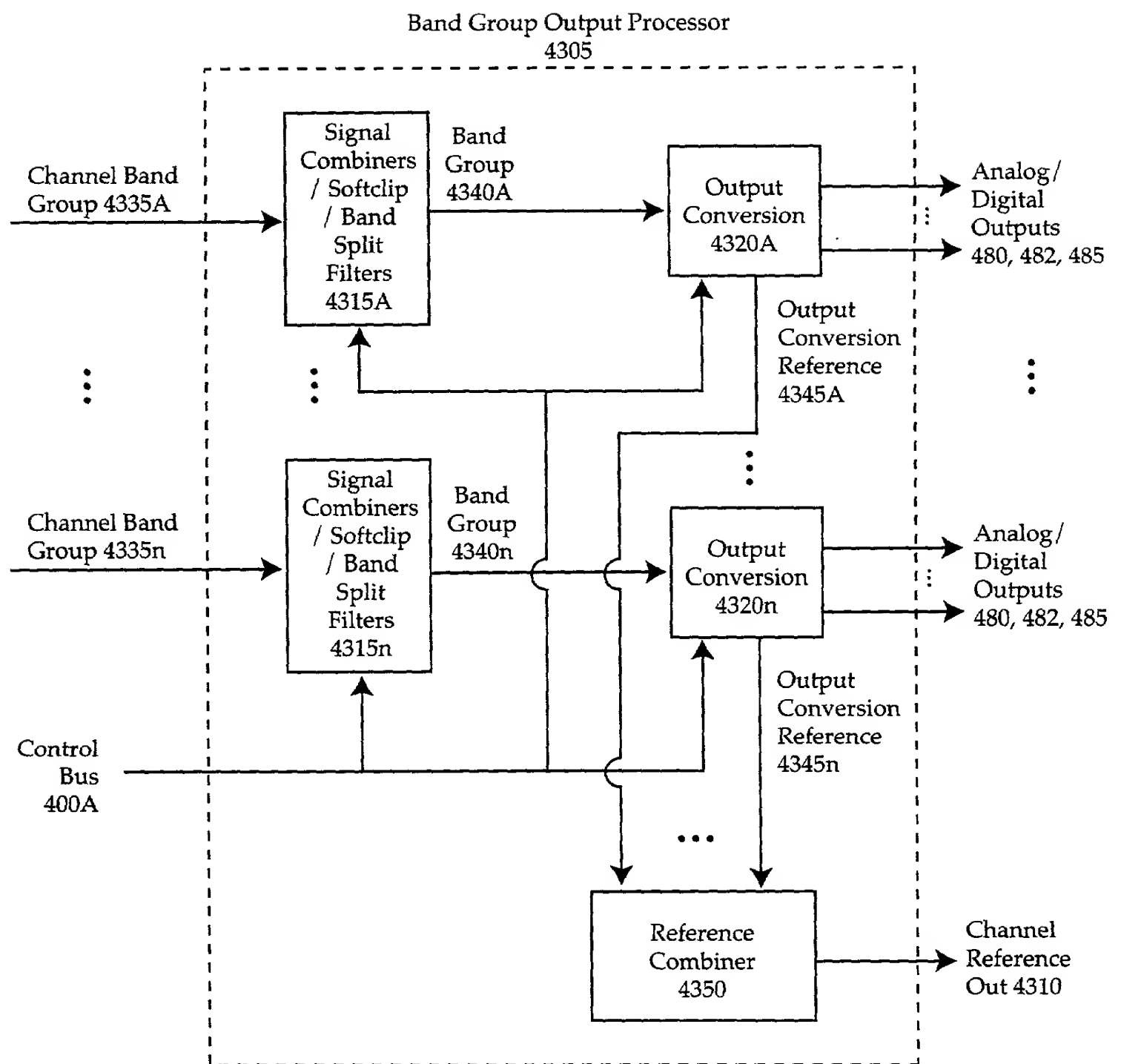


FIG. 43B

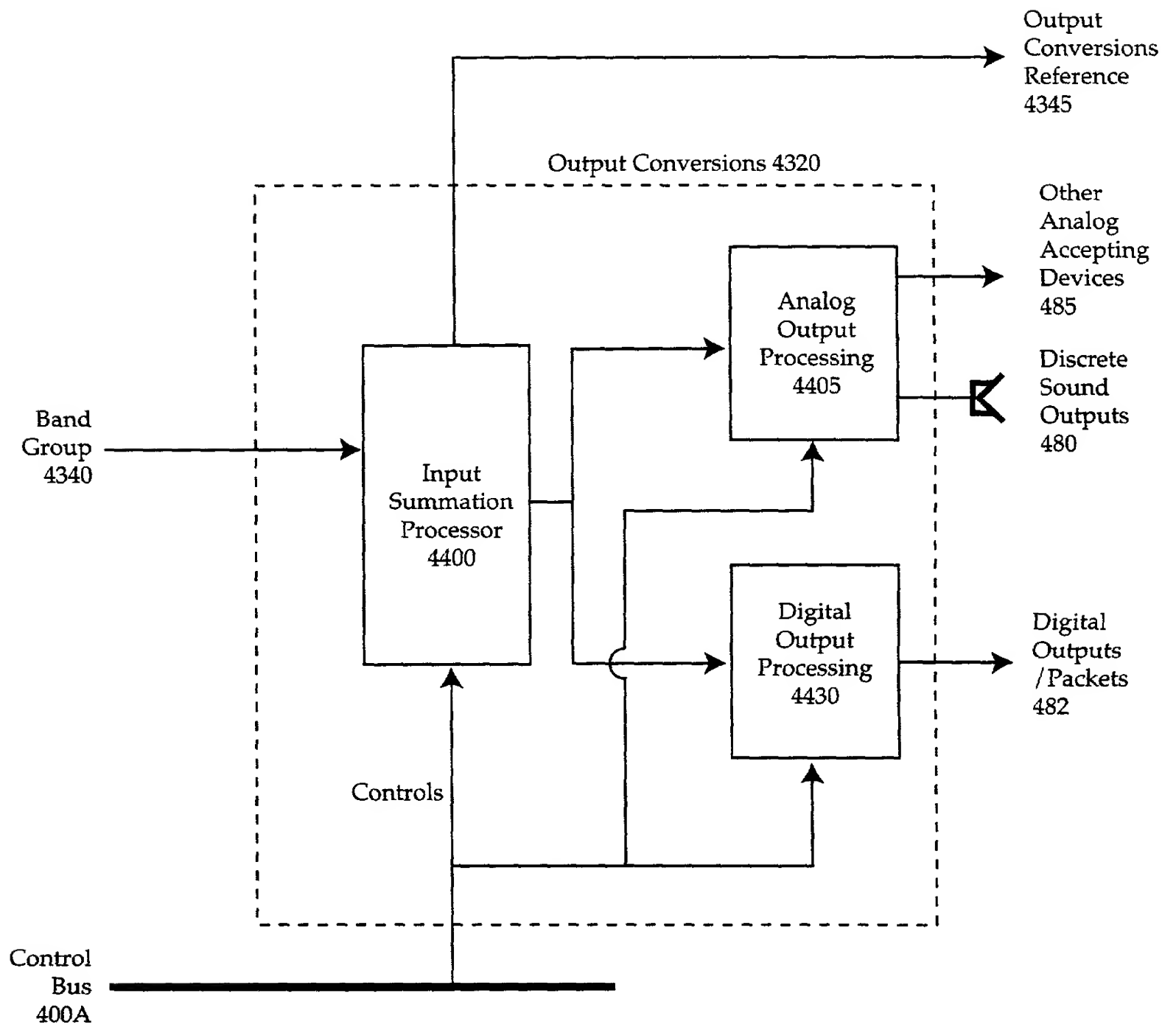


FIG. 44

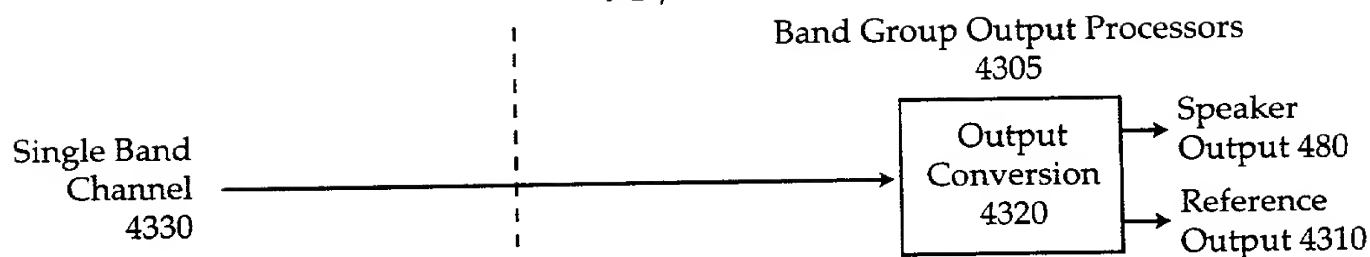


FIG. 45A

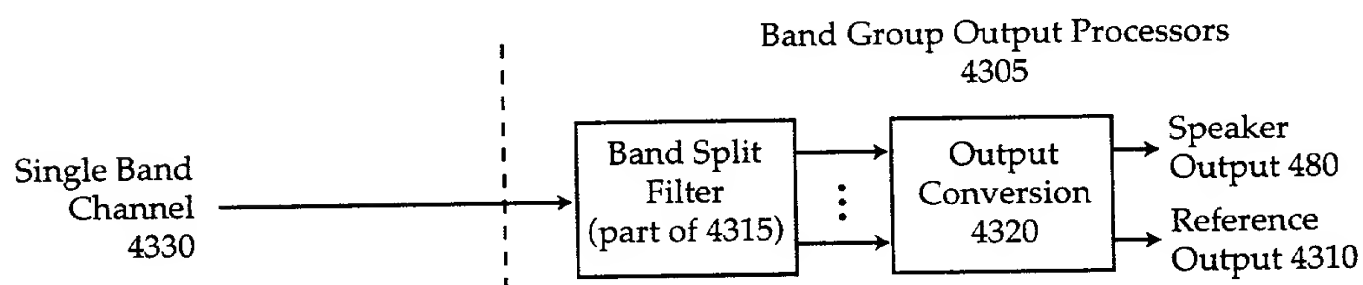


FIG. 45B

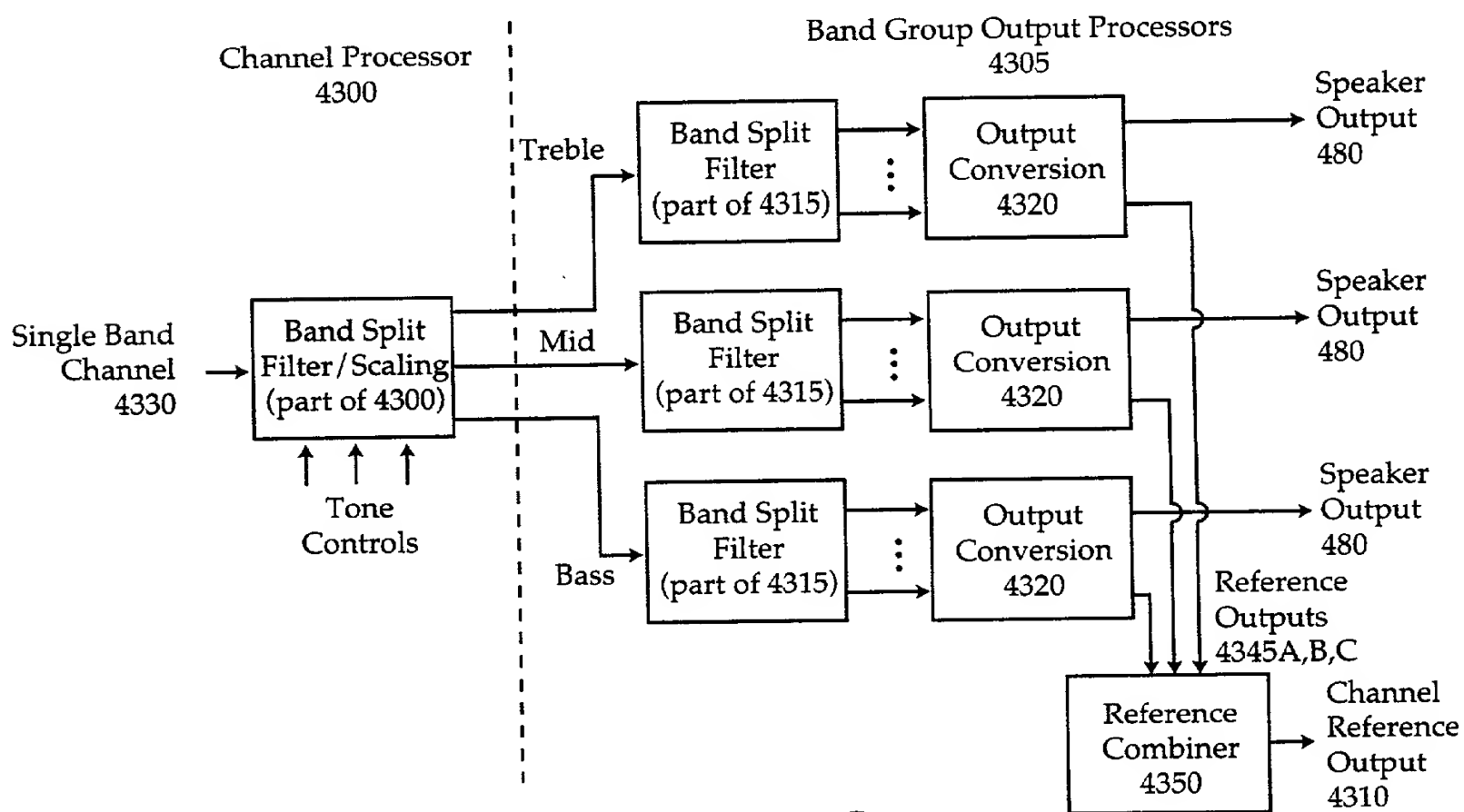


FIG. 45C

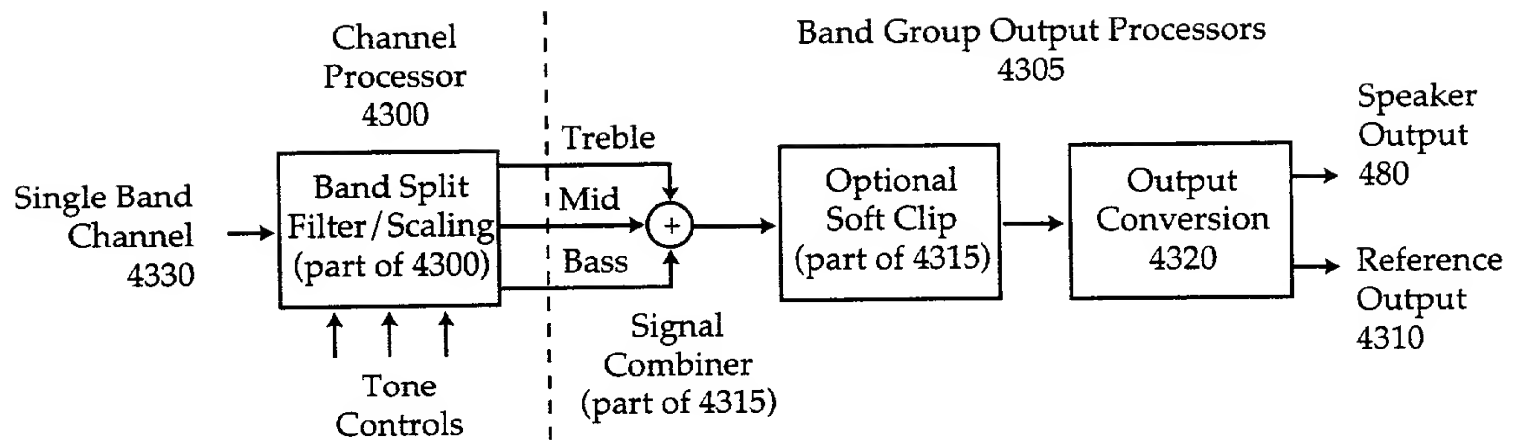


FIG. 45D

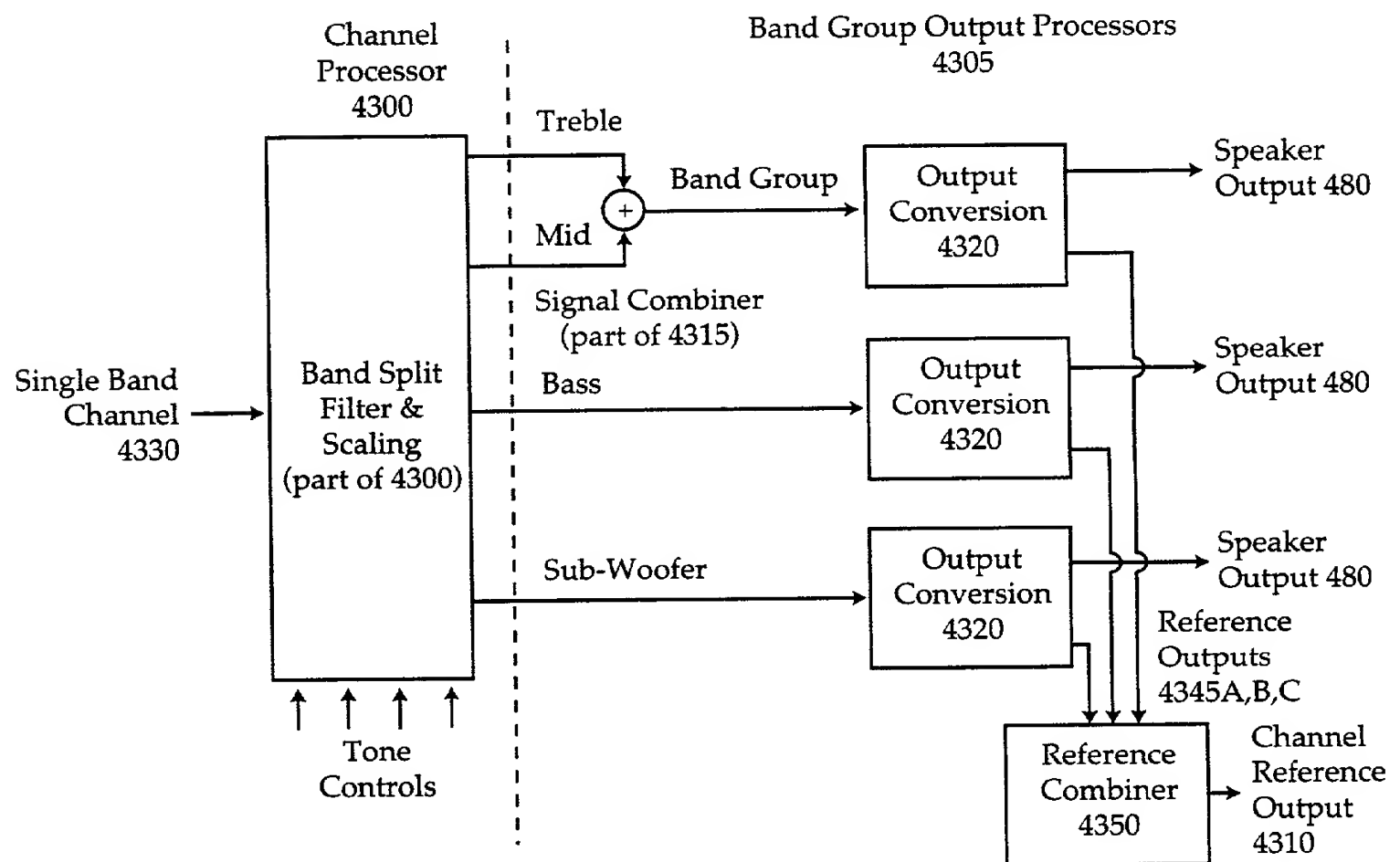


FIG. 45E

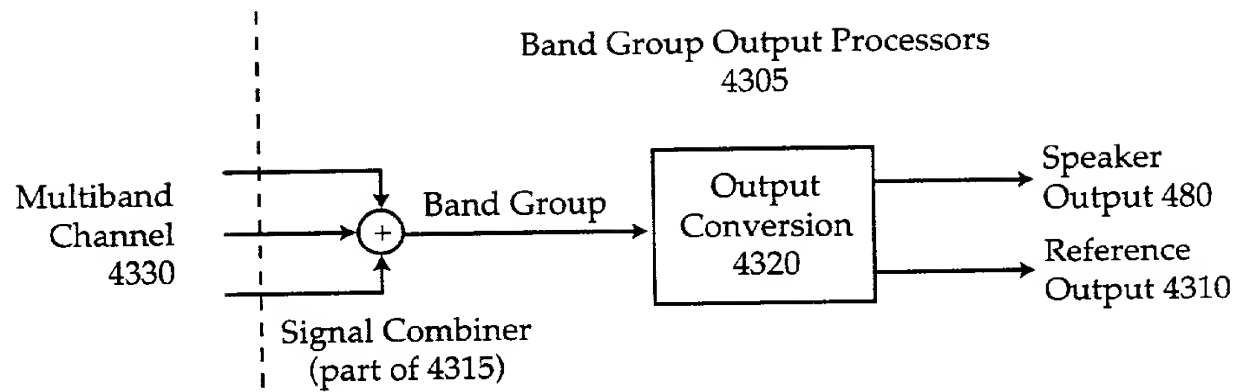


FIG. 45F

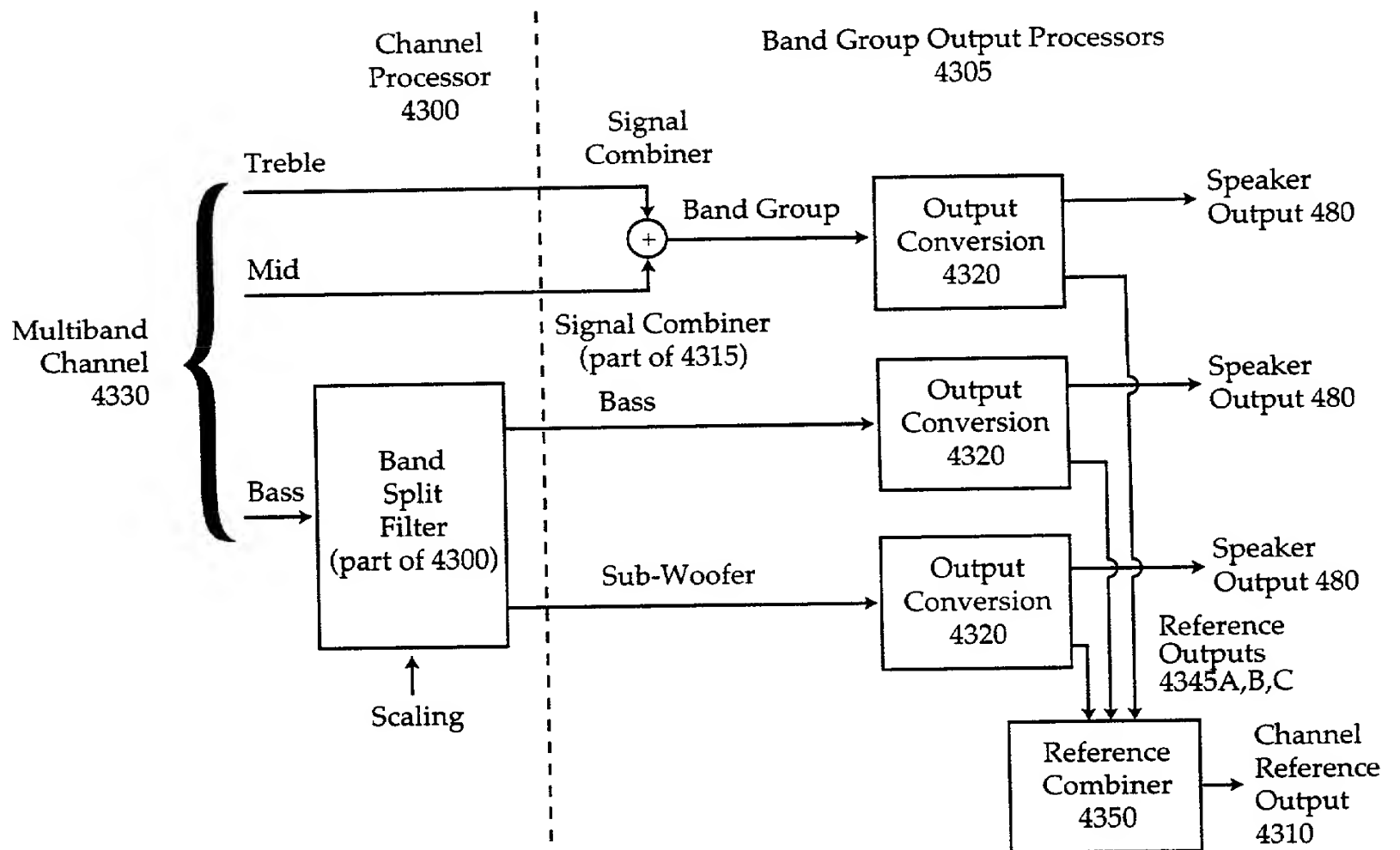


FIG. 45G

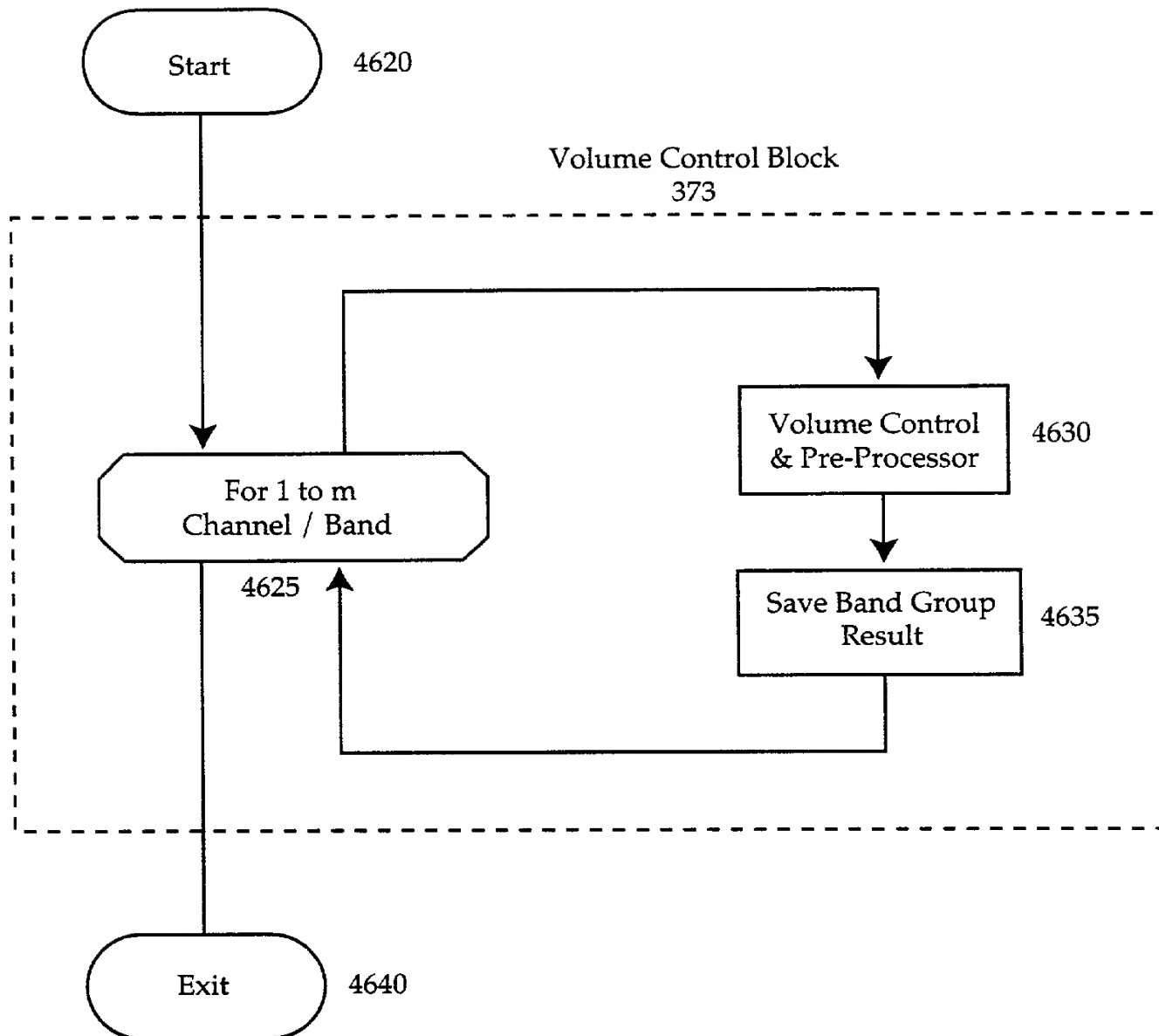


FIG. 46

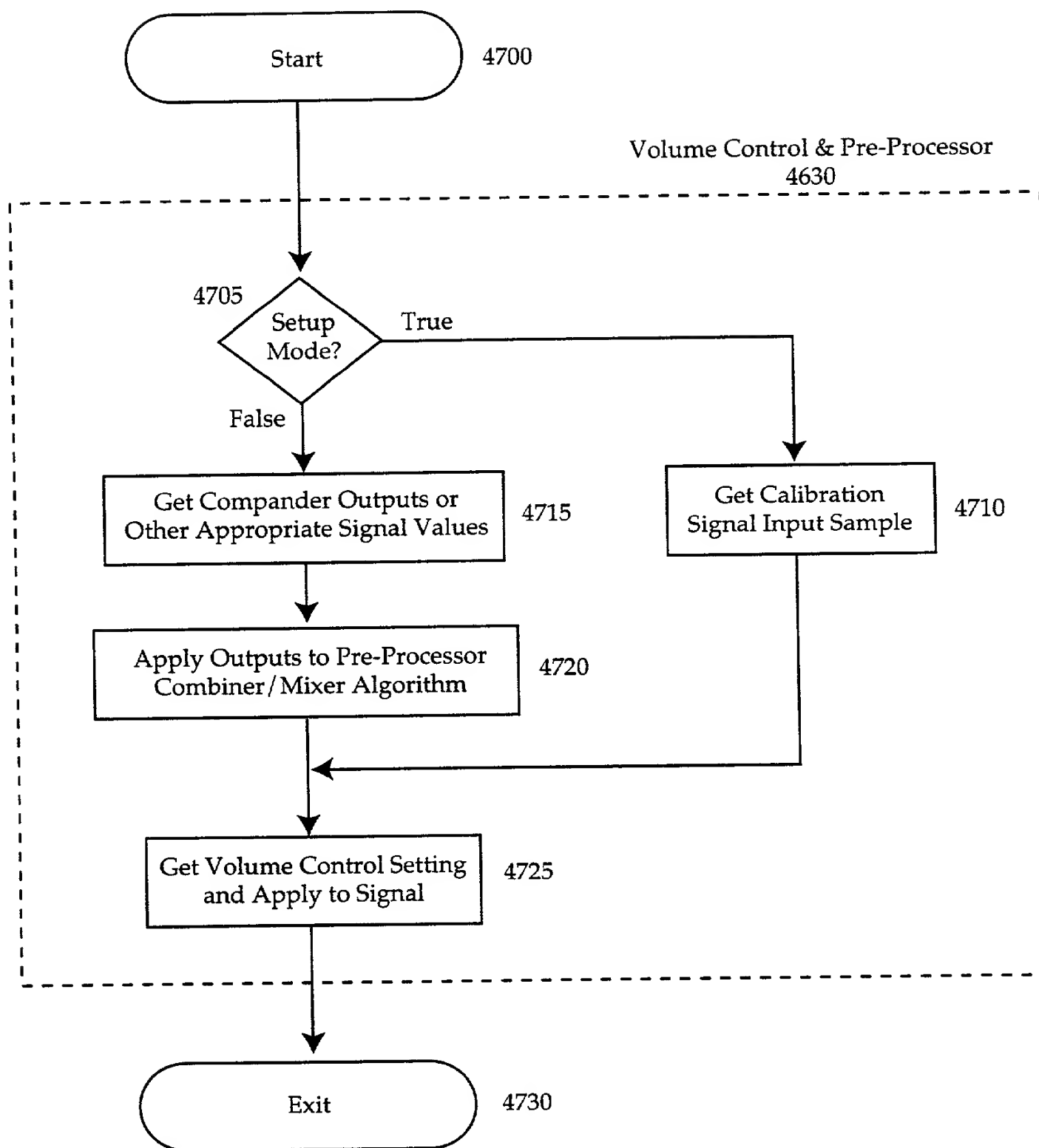


FIG. 47

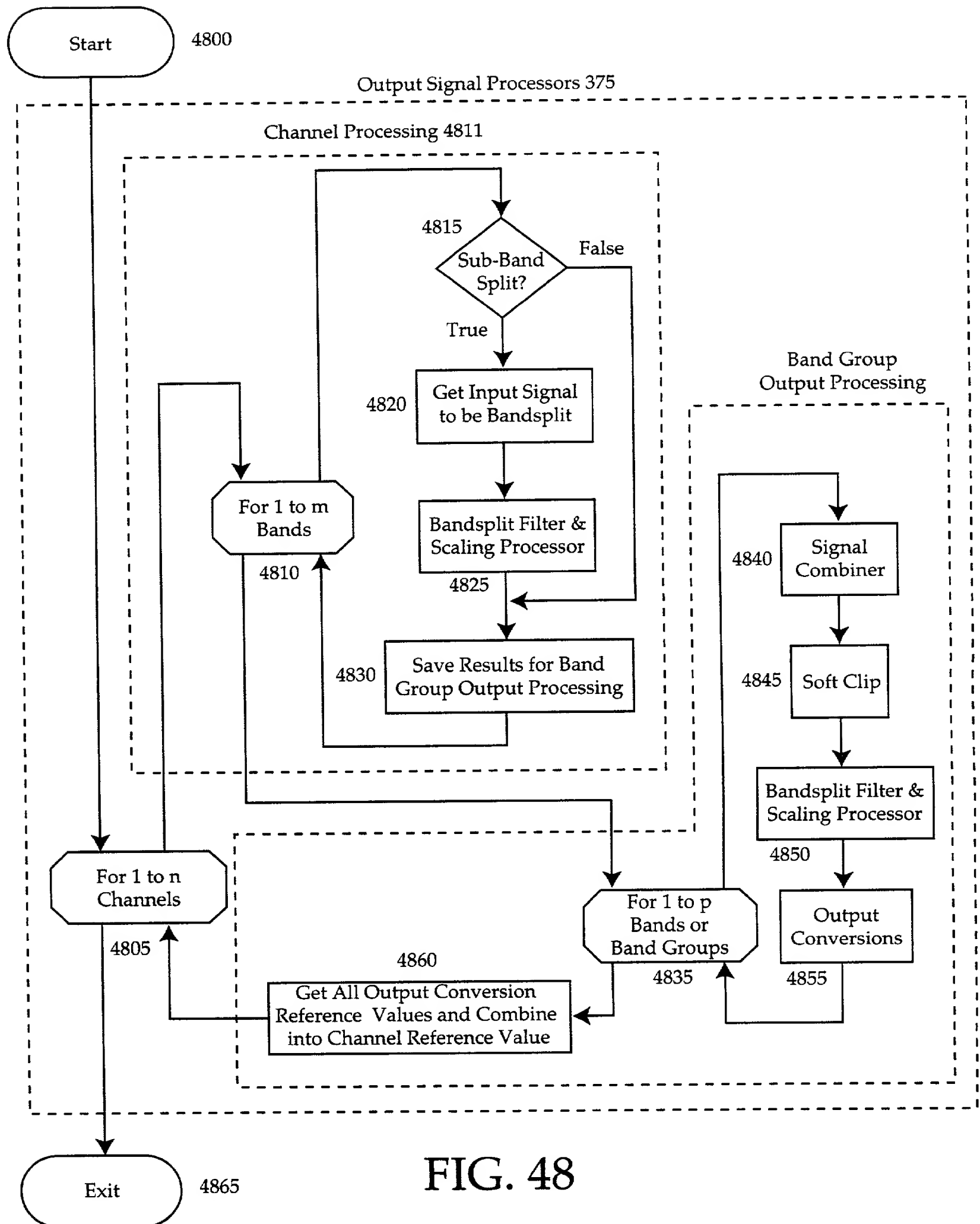


FIG. 48

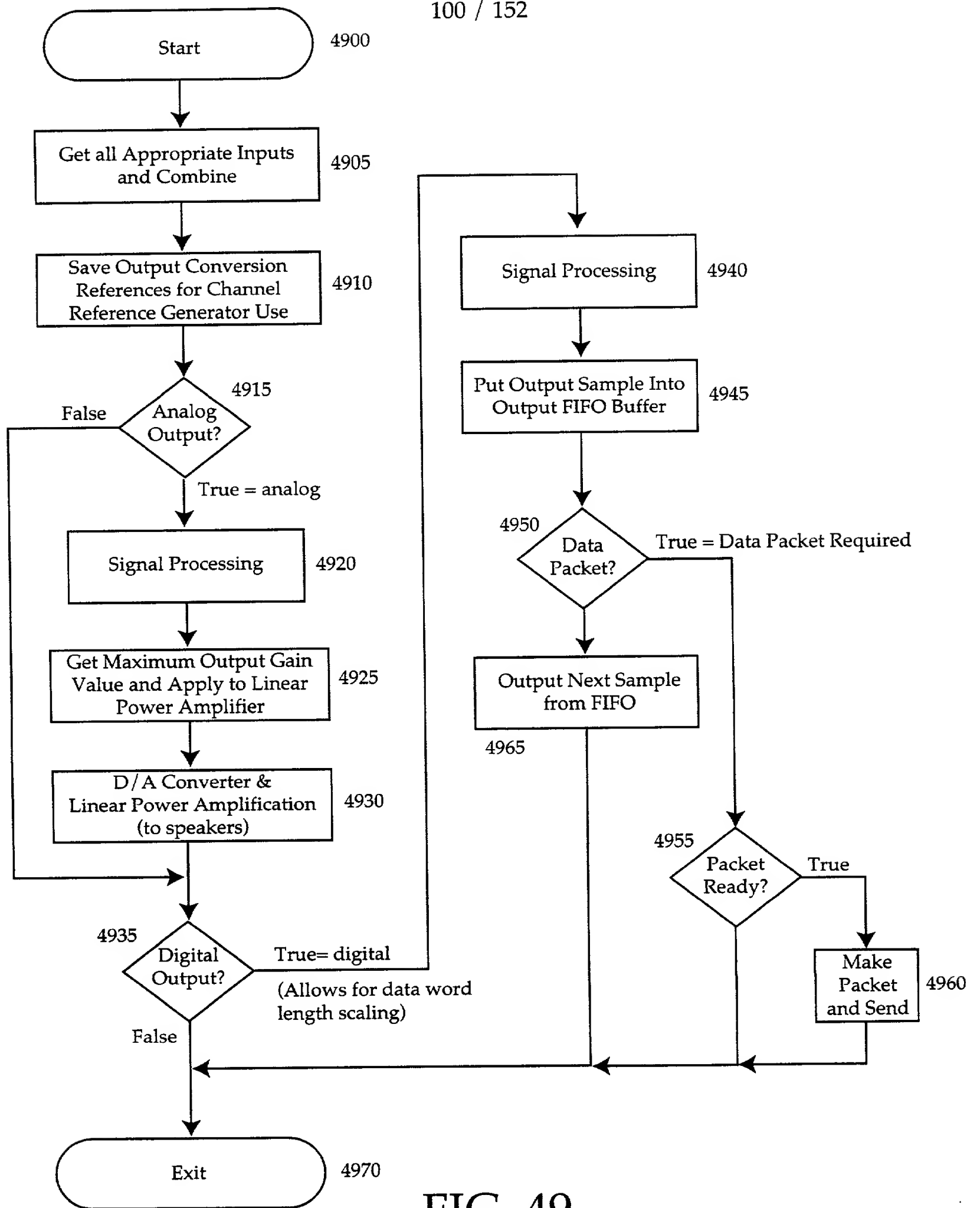


FIG. 49

Calibrator / Annunciator 420

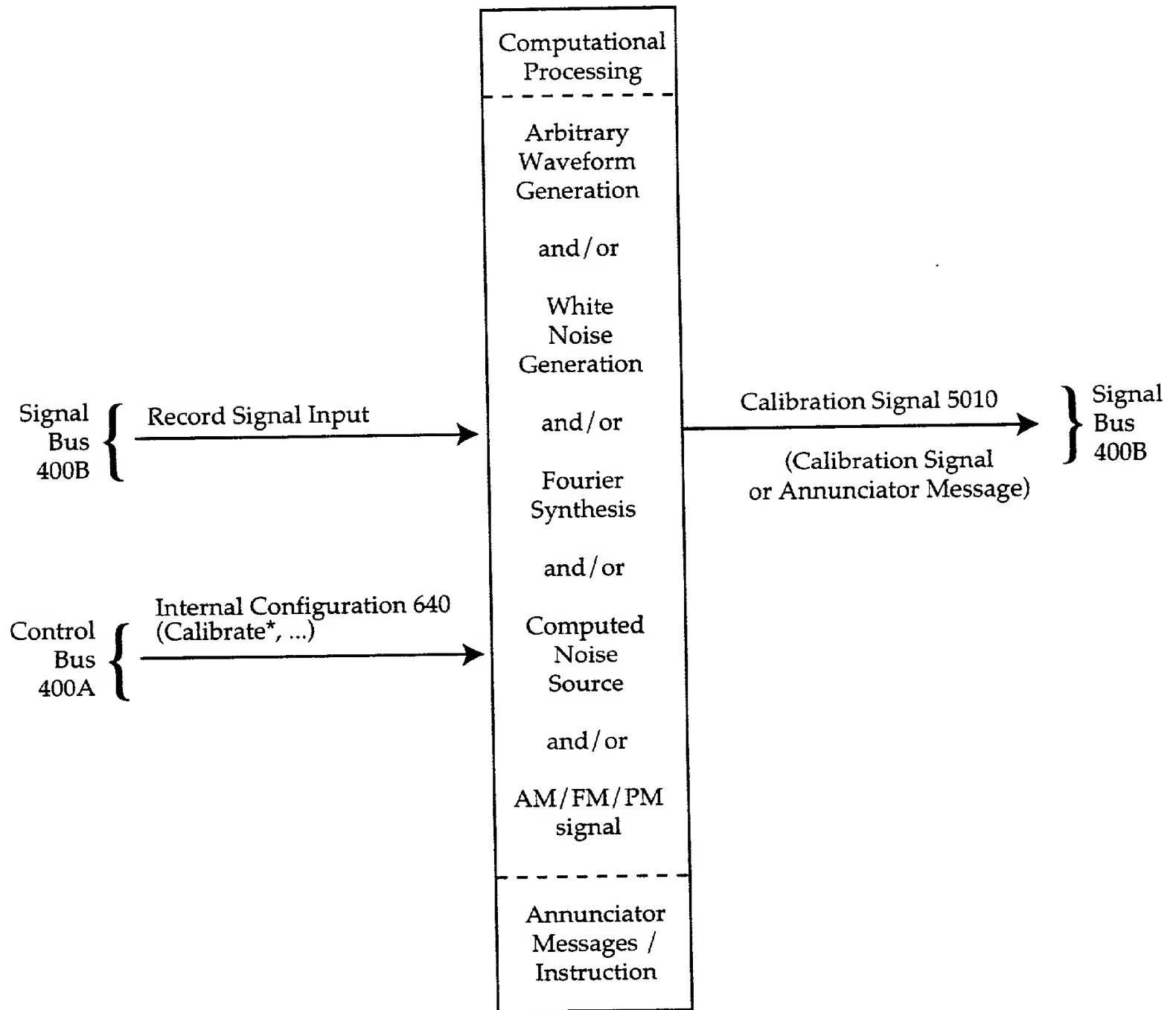


FIG. 50

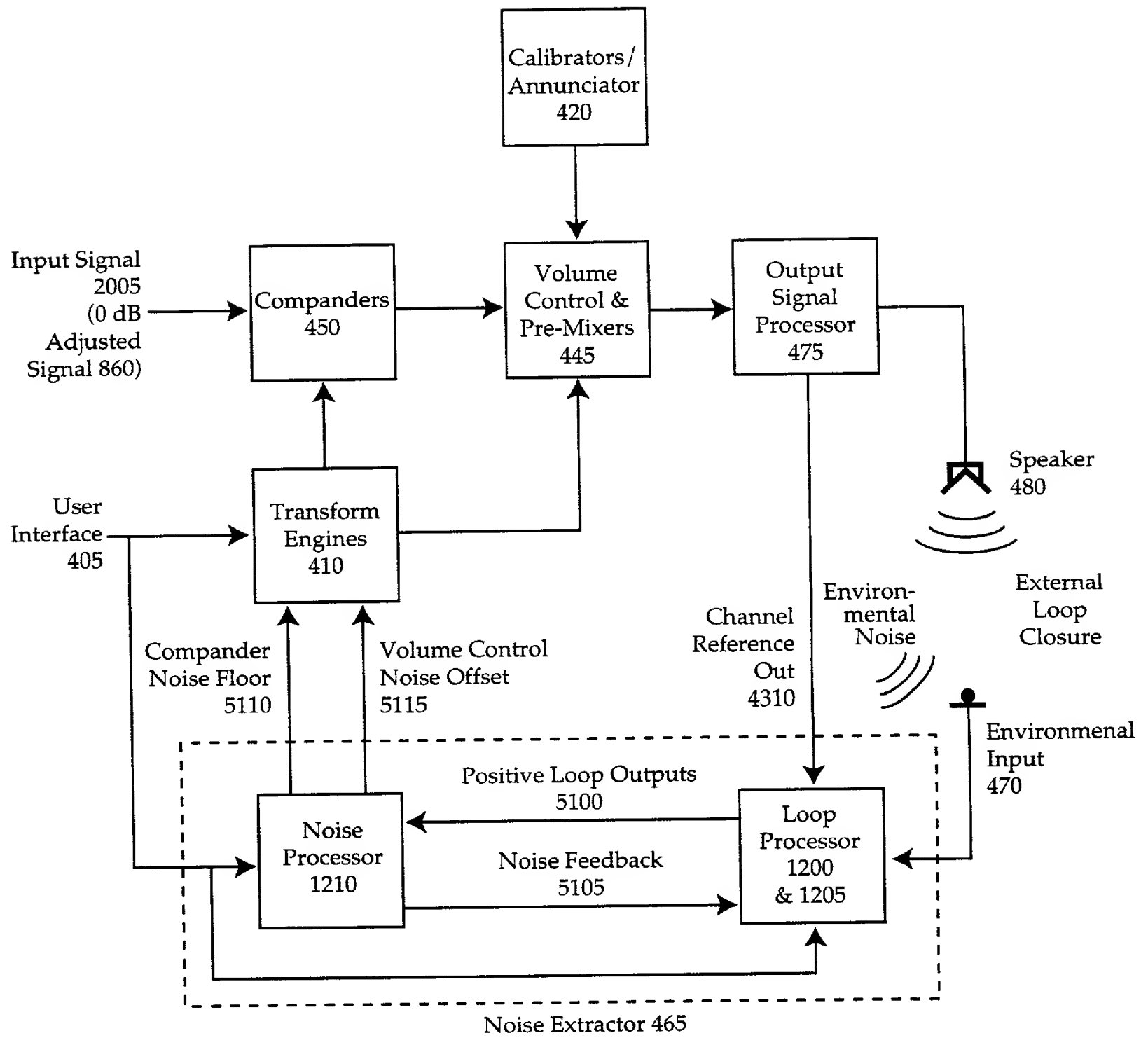


FIG. 51

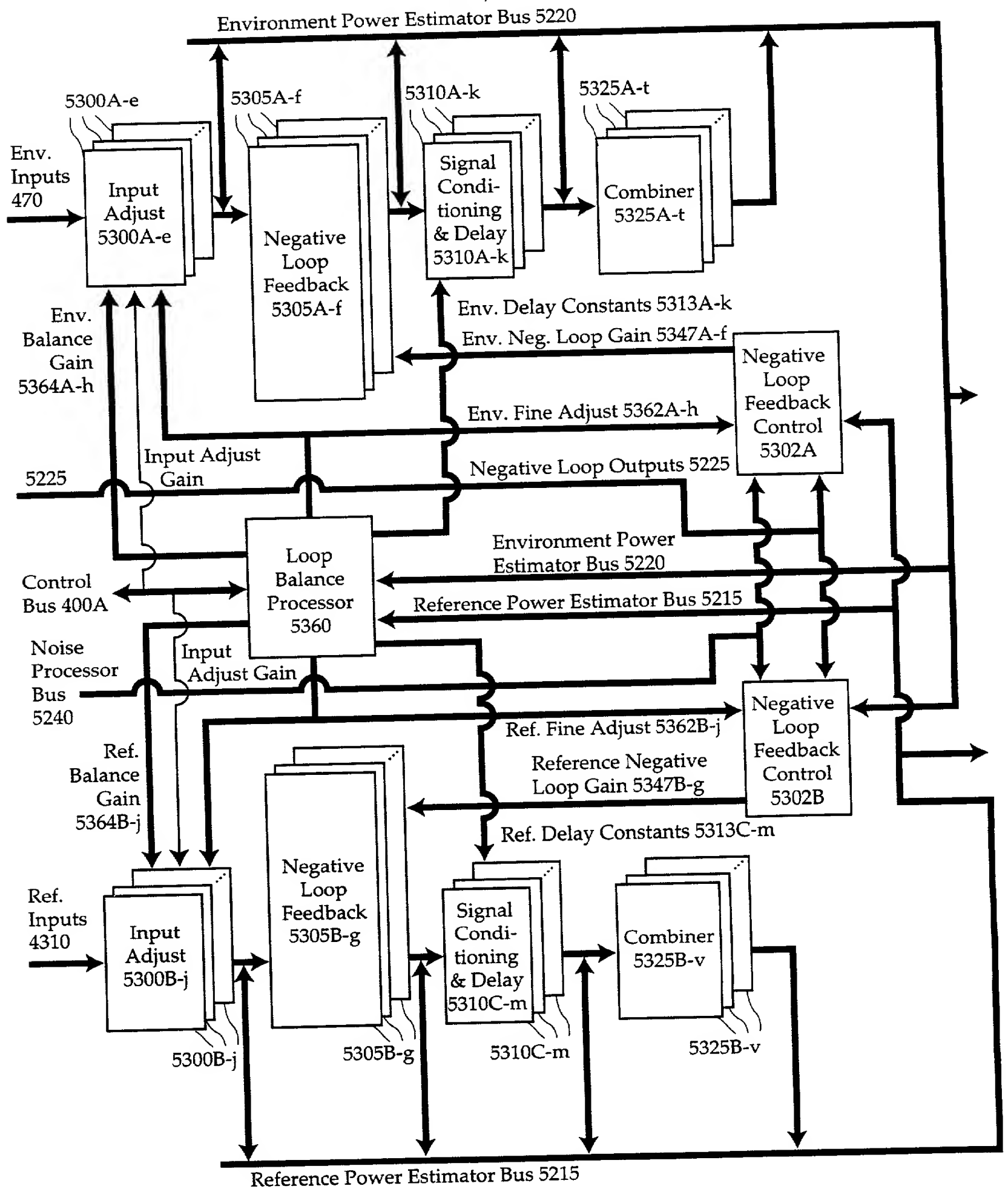


FIG. 52A

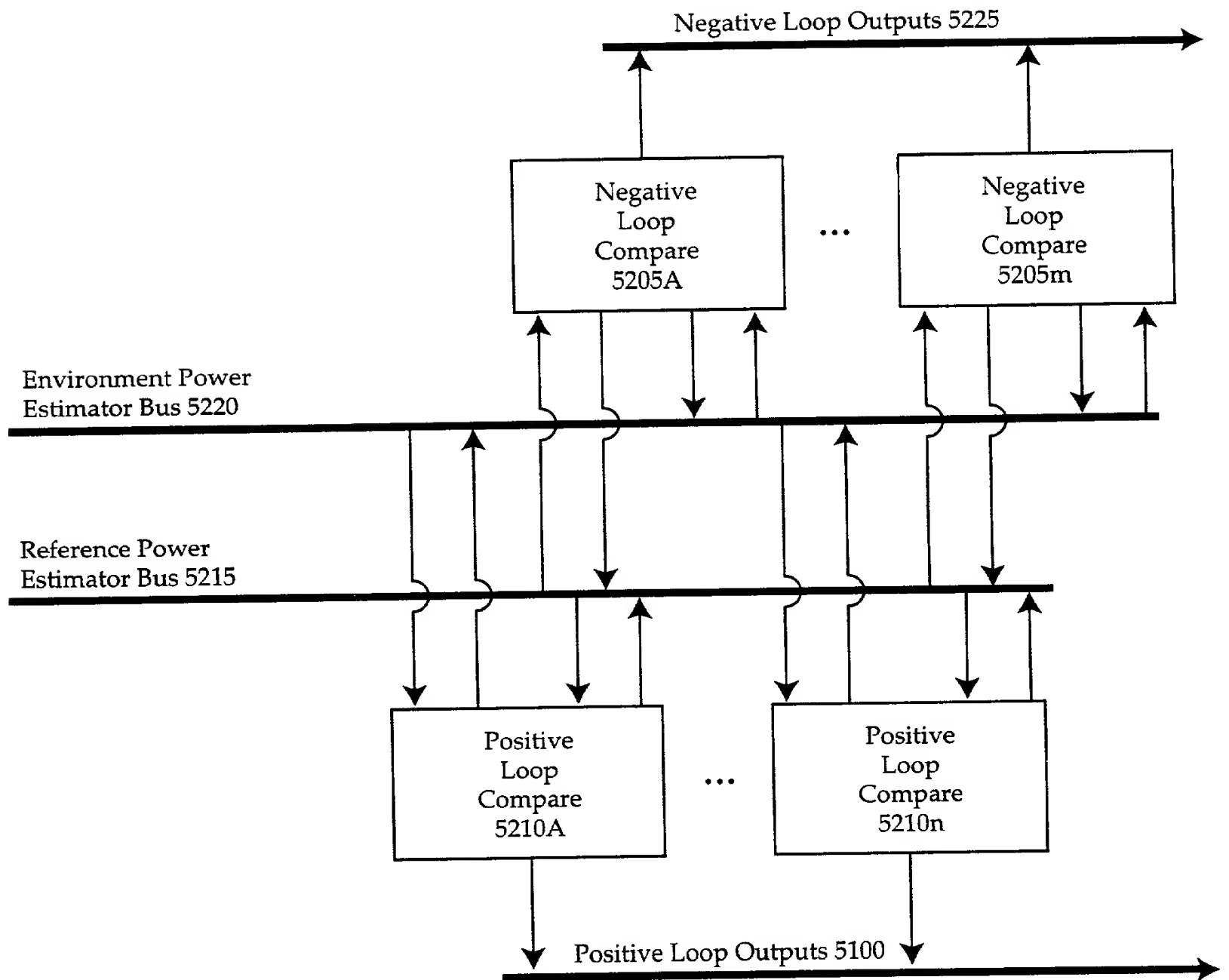


FIG. 52B

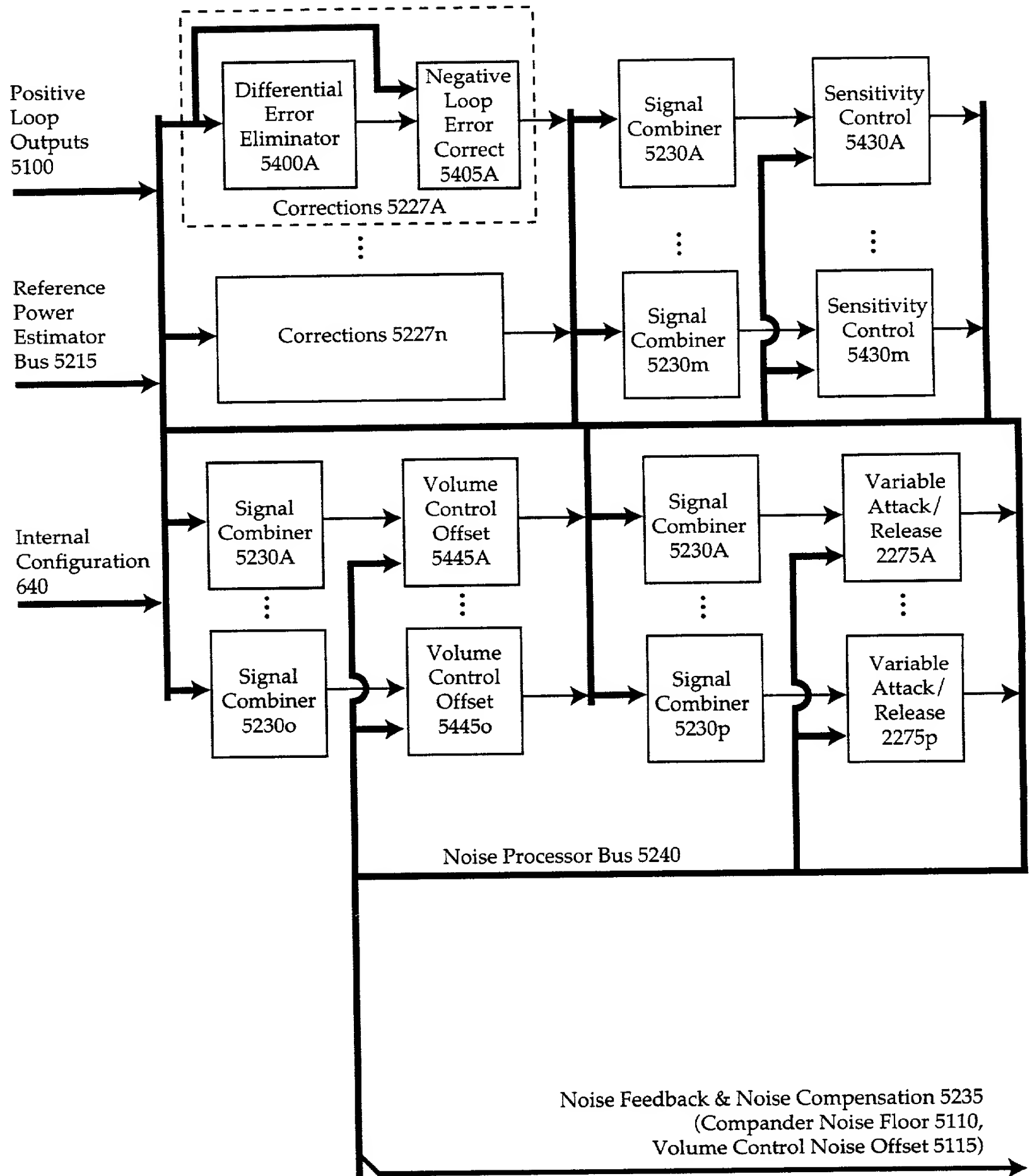


FIG. 52C

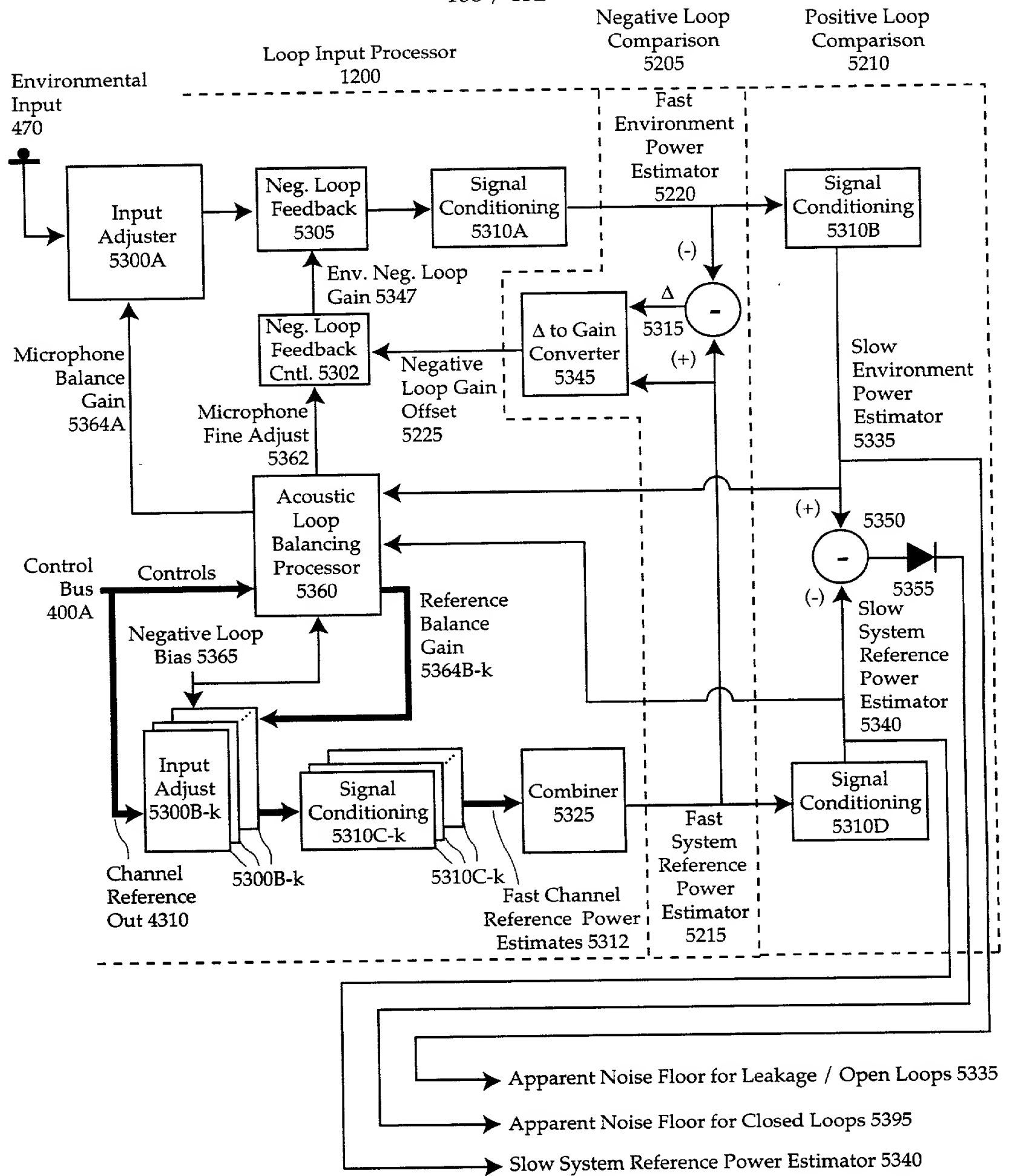


FIG. 53A

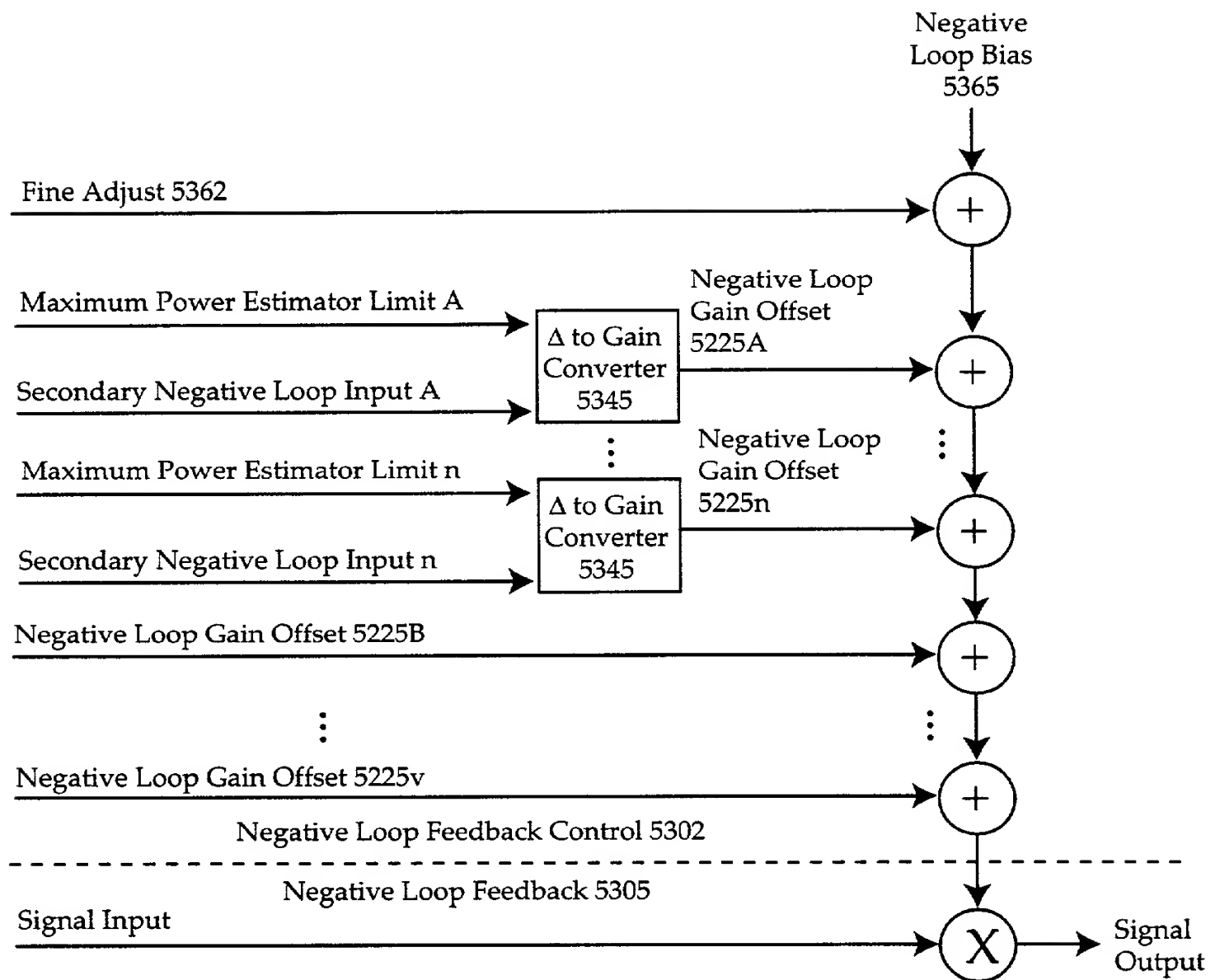


FIG. 53B

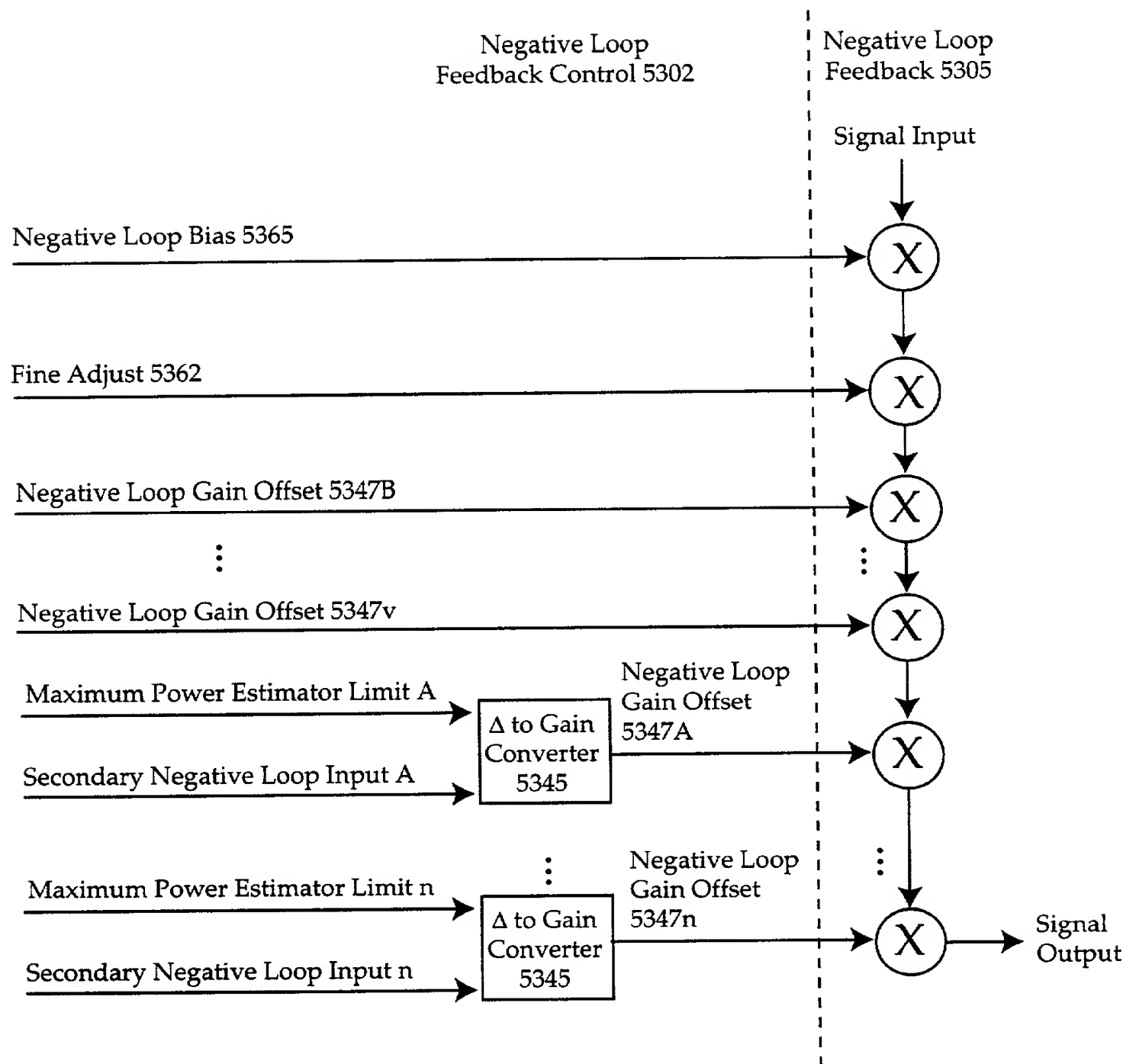


FIG. 53C

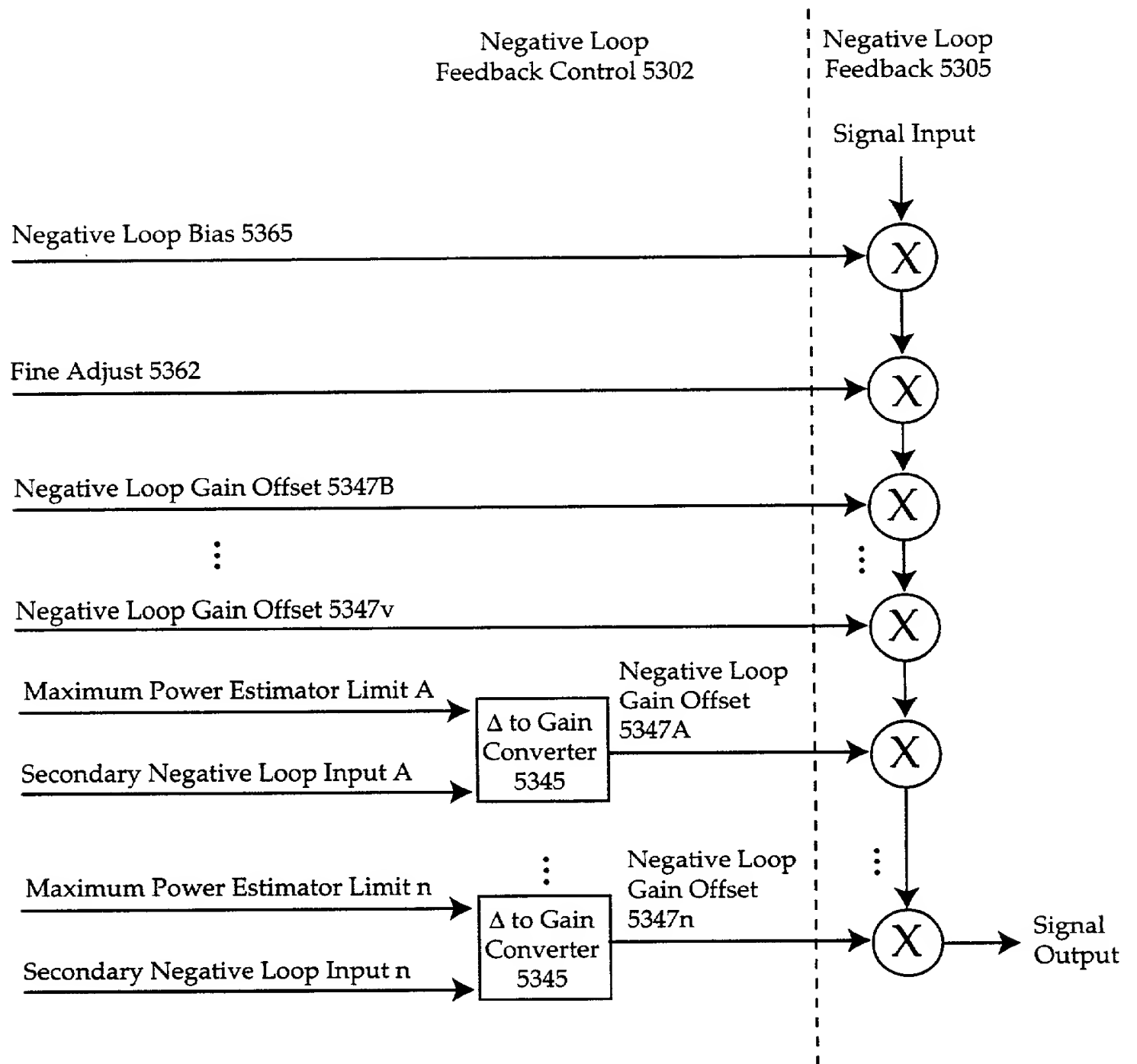


FIG. 53C

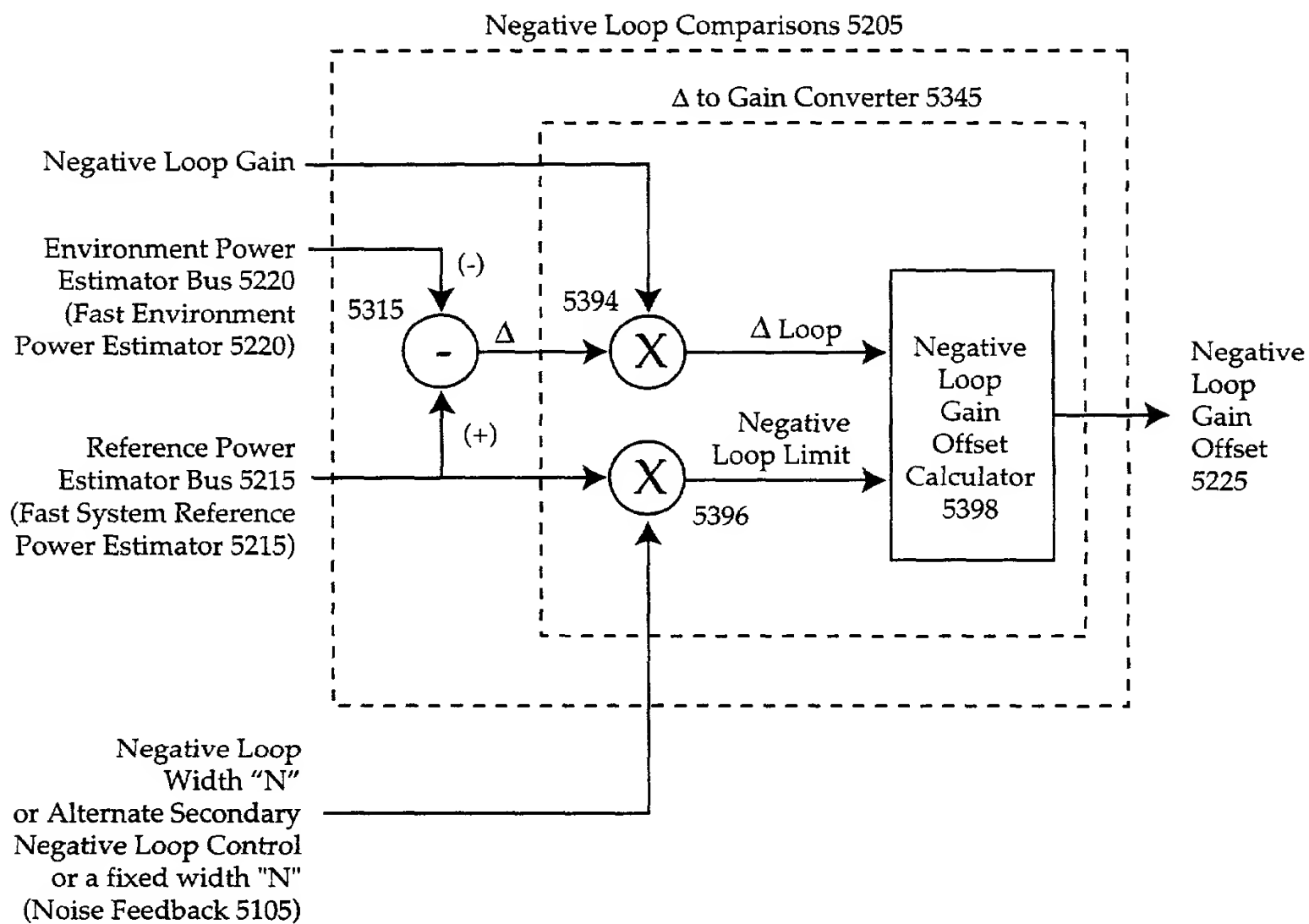


FIG. 53D

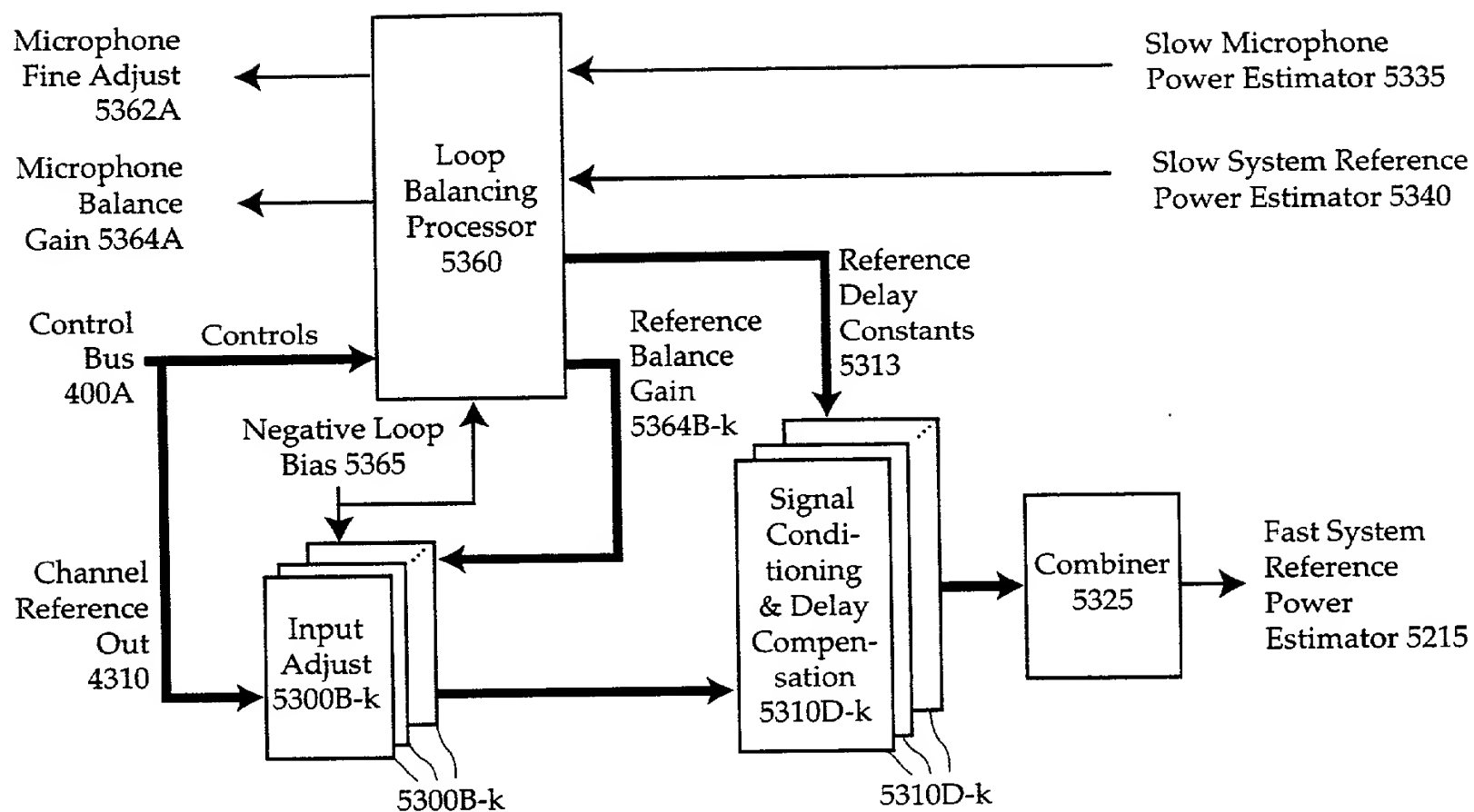


FIG. 53E

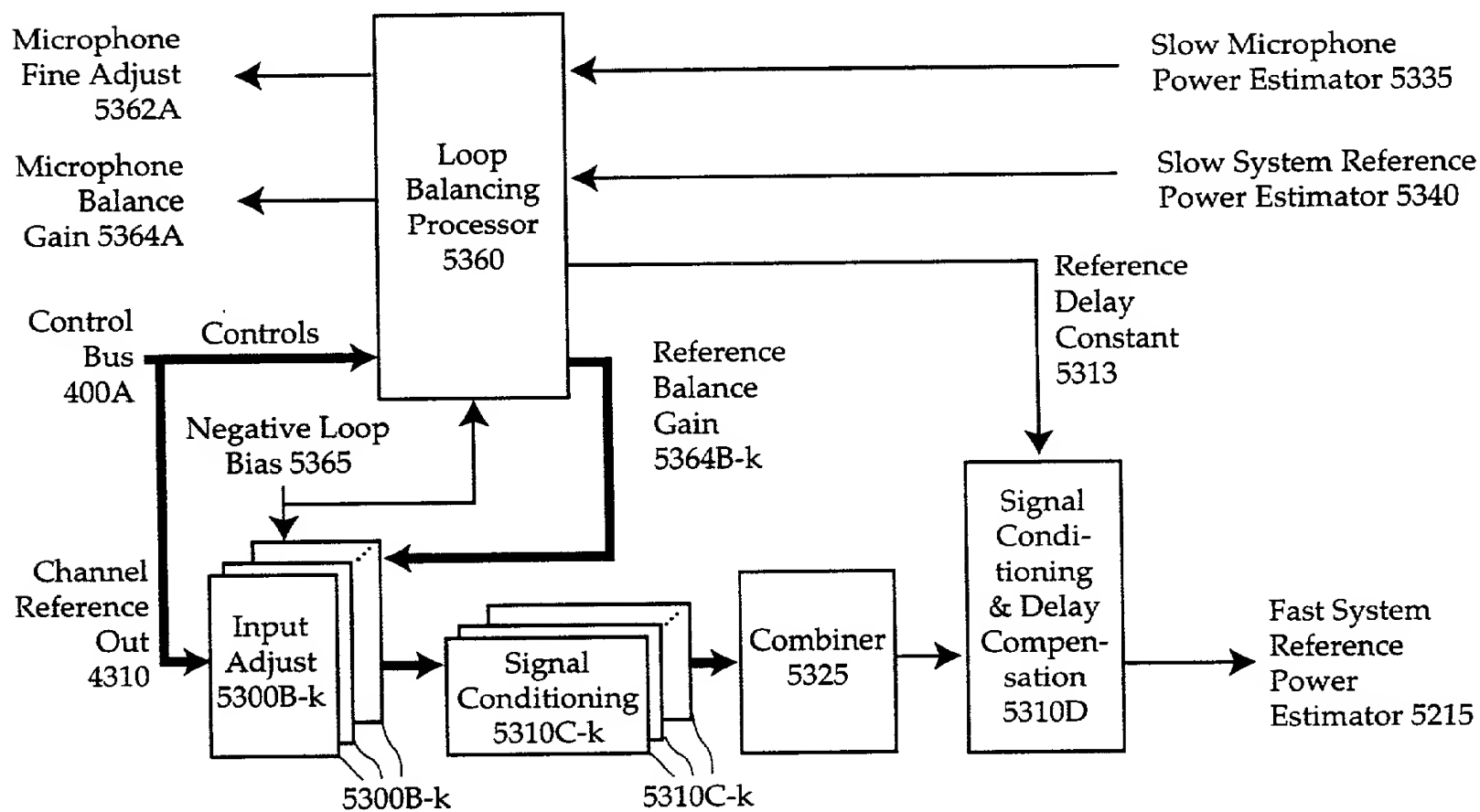


FIG. 53F

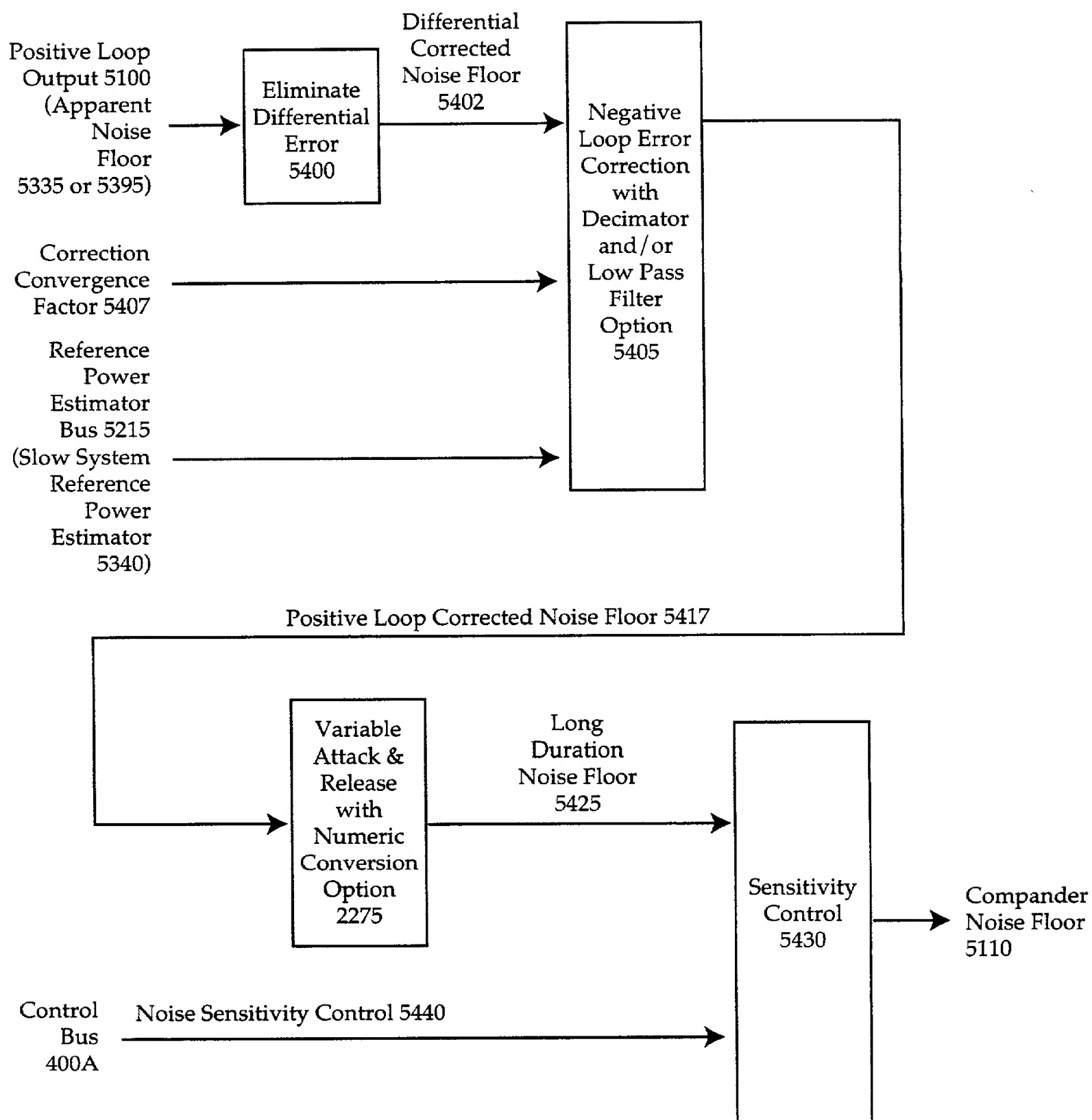


FIG. 54A

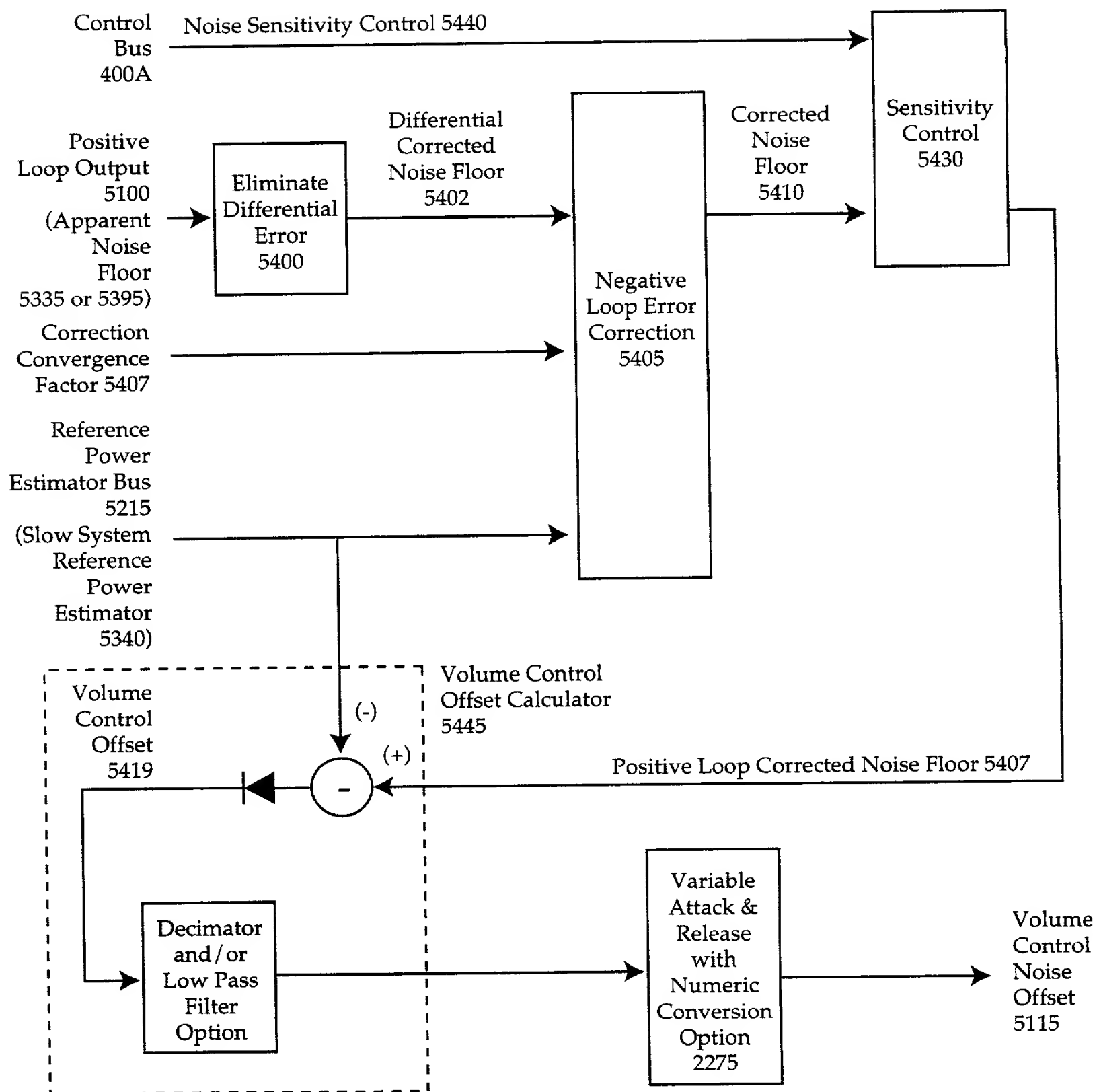


FIG. 54B

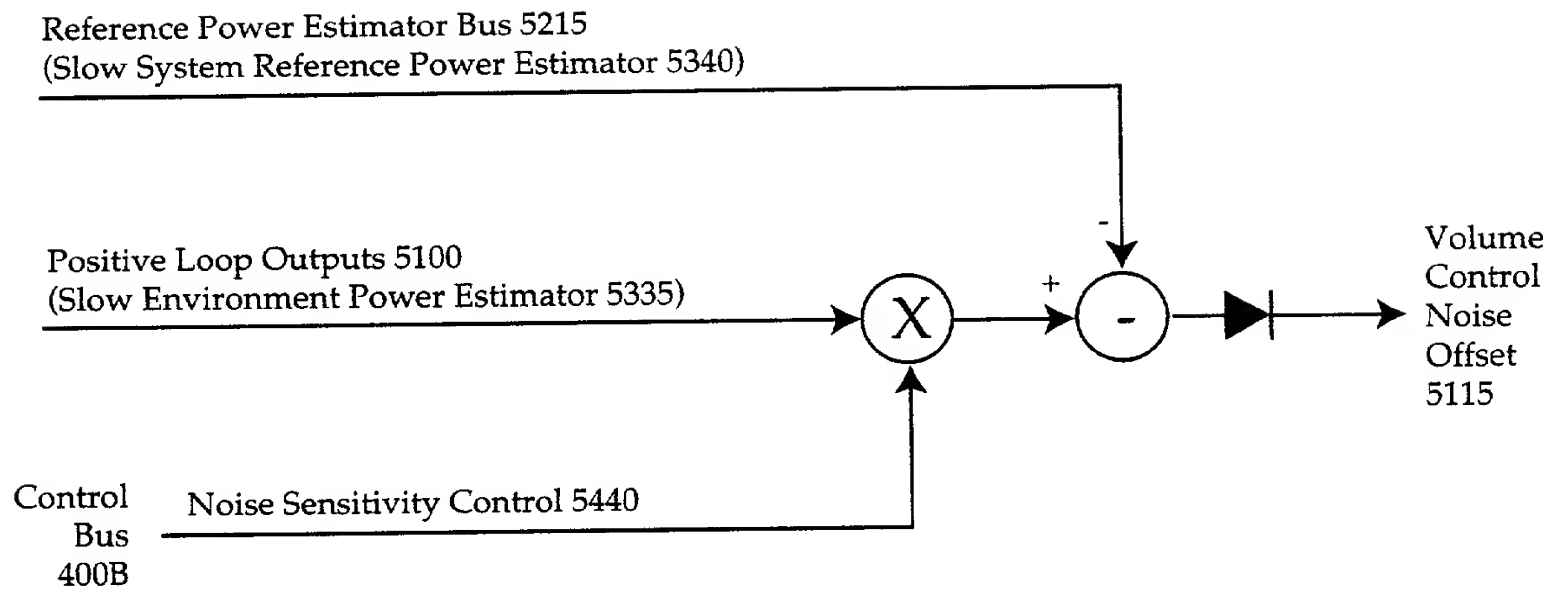


FIG. 54C

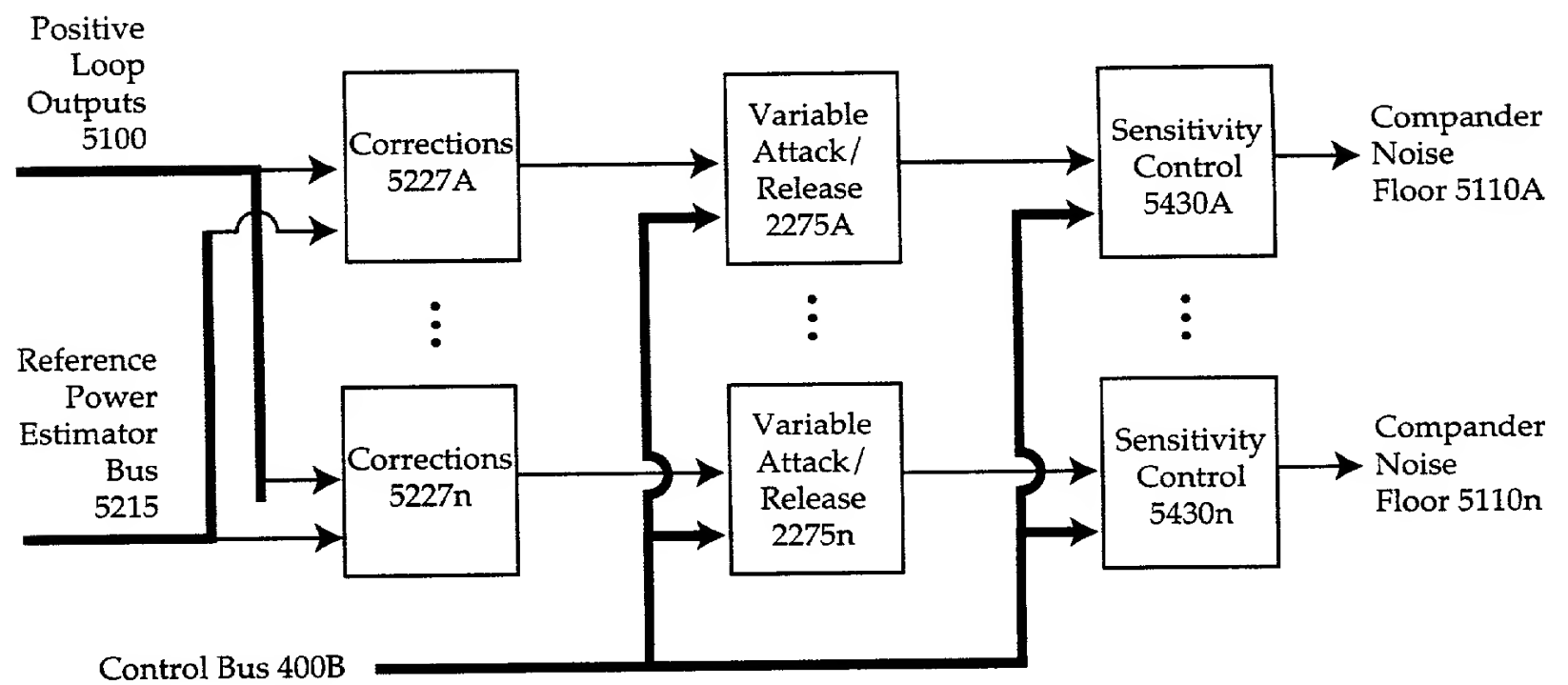


FIG. 54D

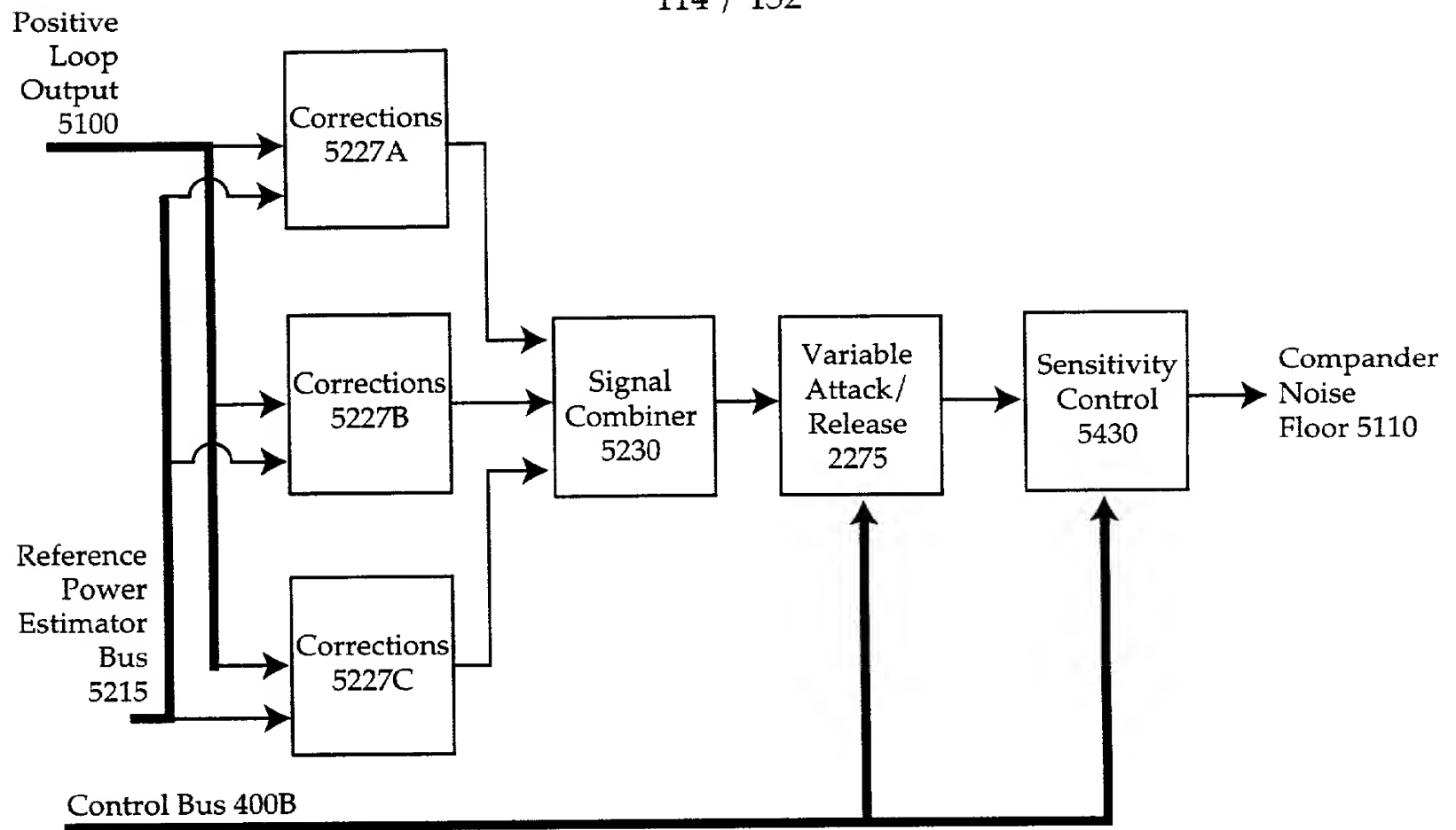


FIG. 54E

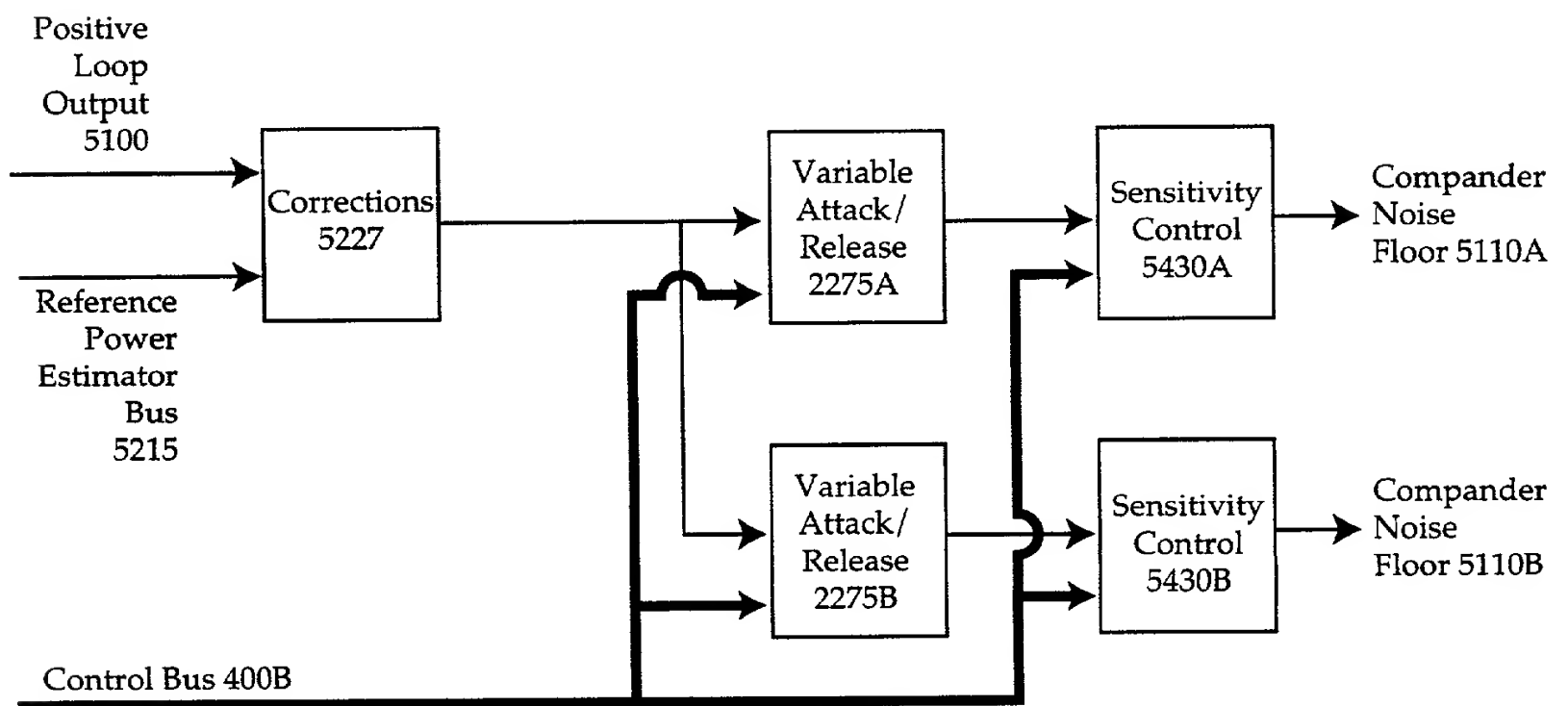


FIG. 54F

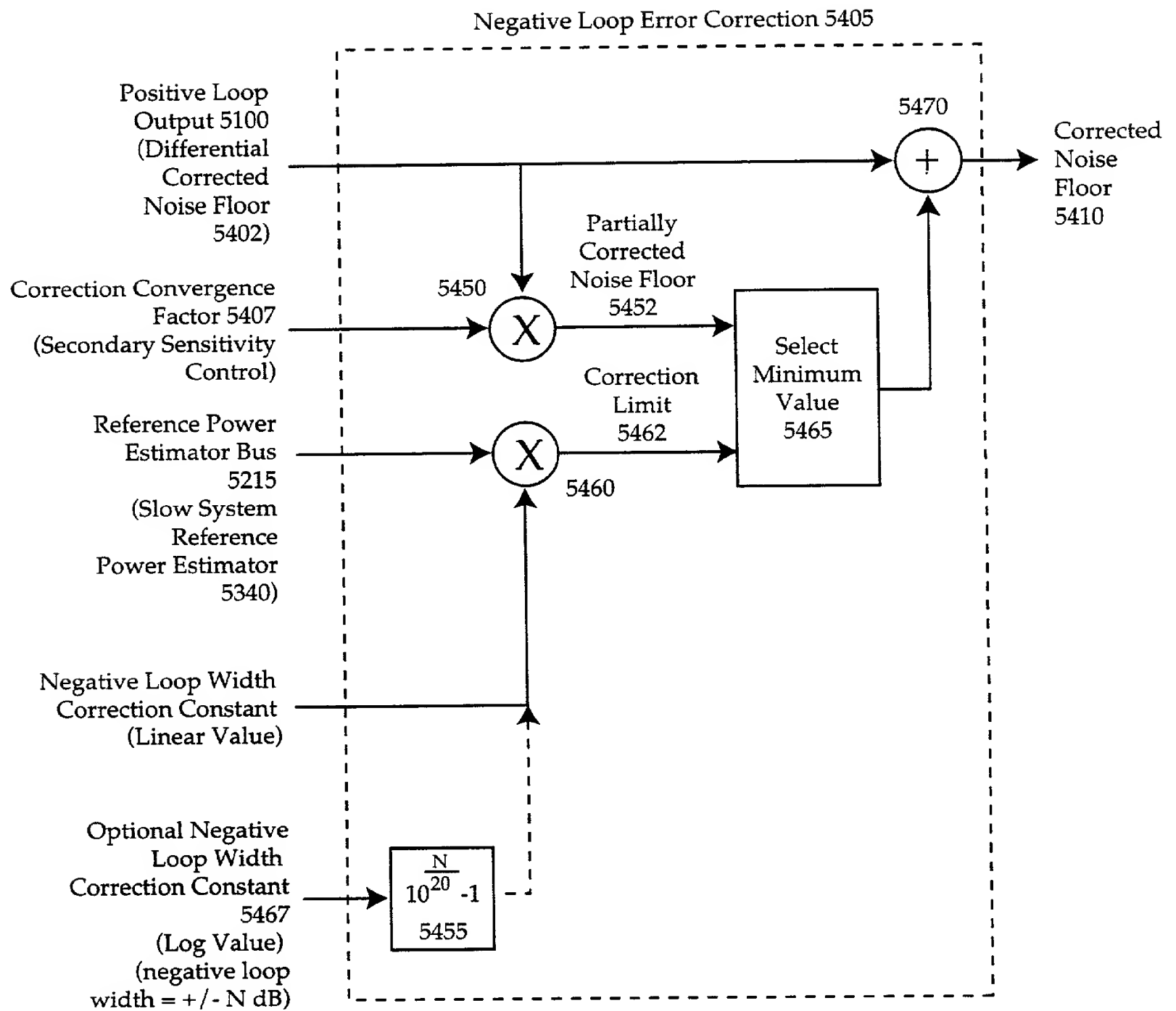


FIG. 54G

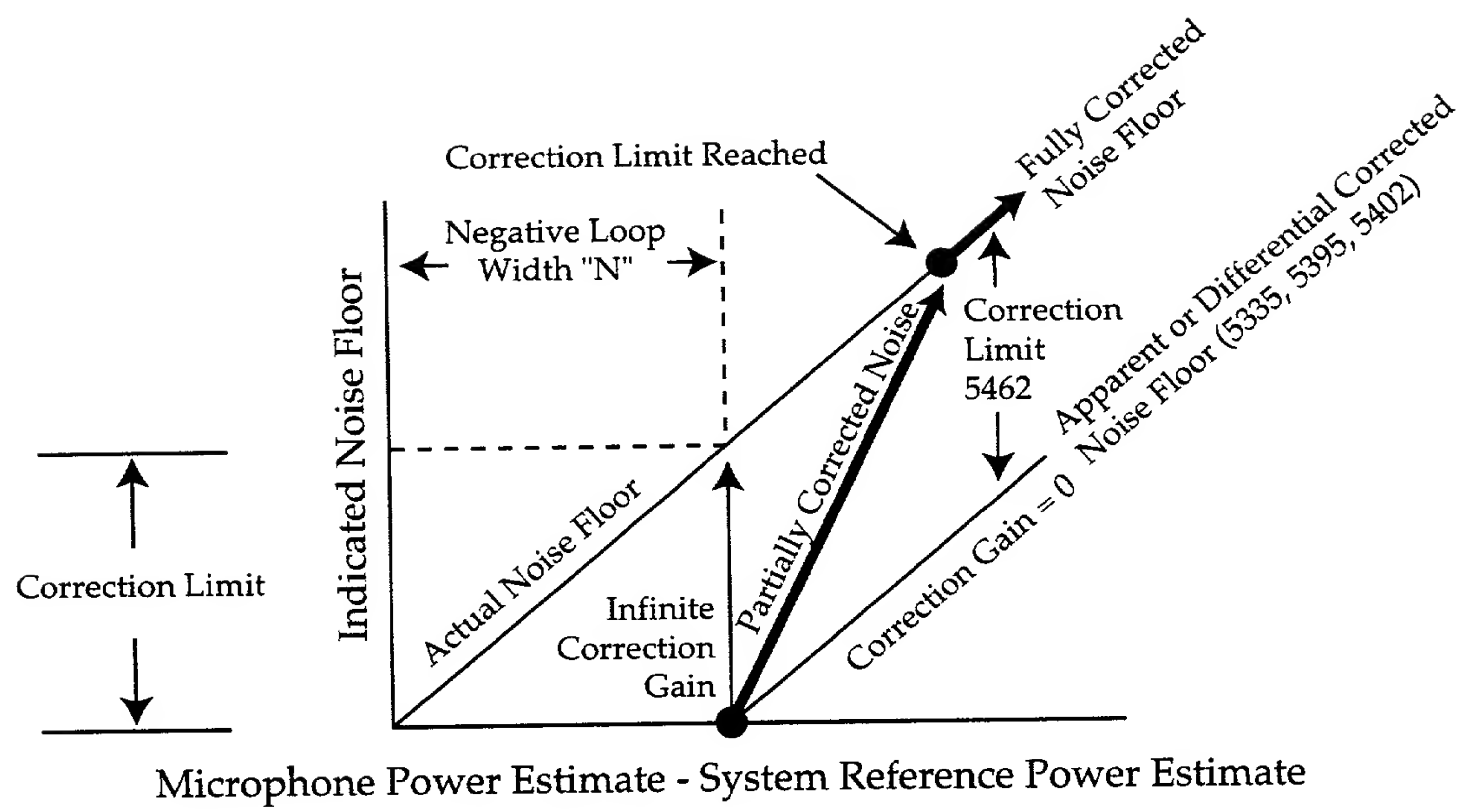


FIG. 54H

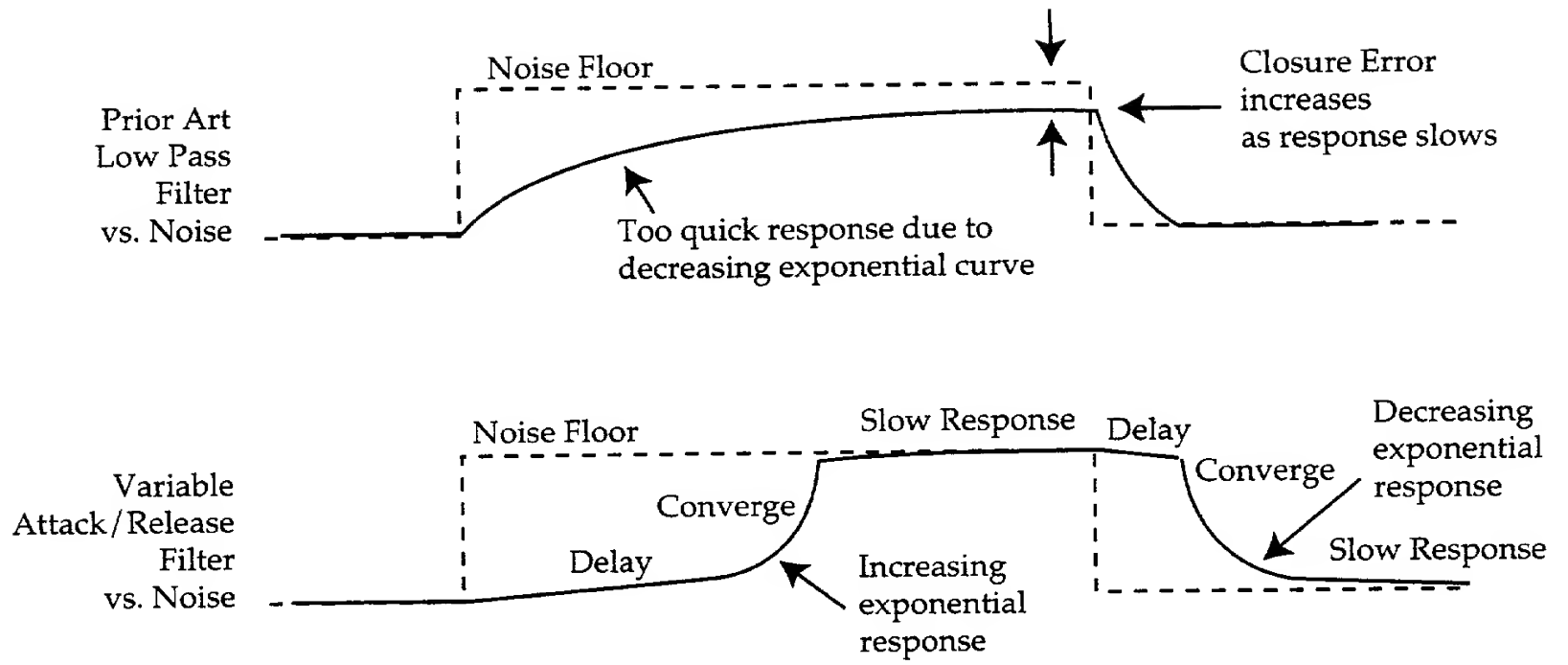


FIG. 55A

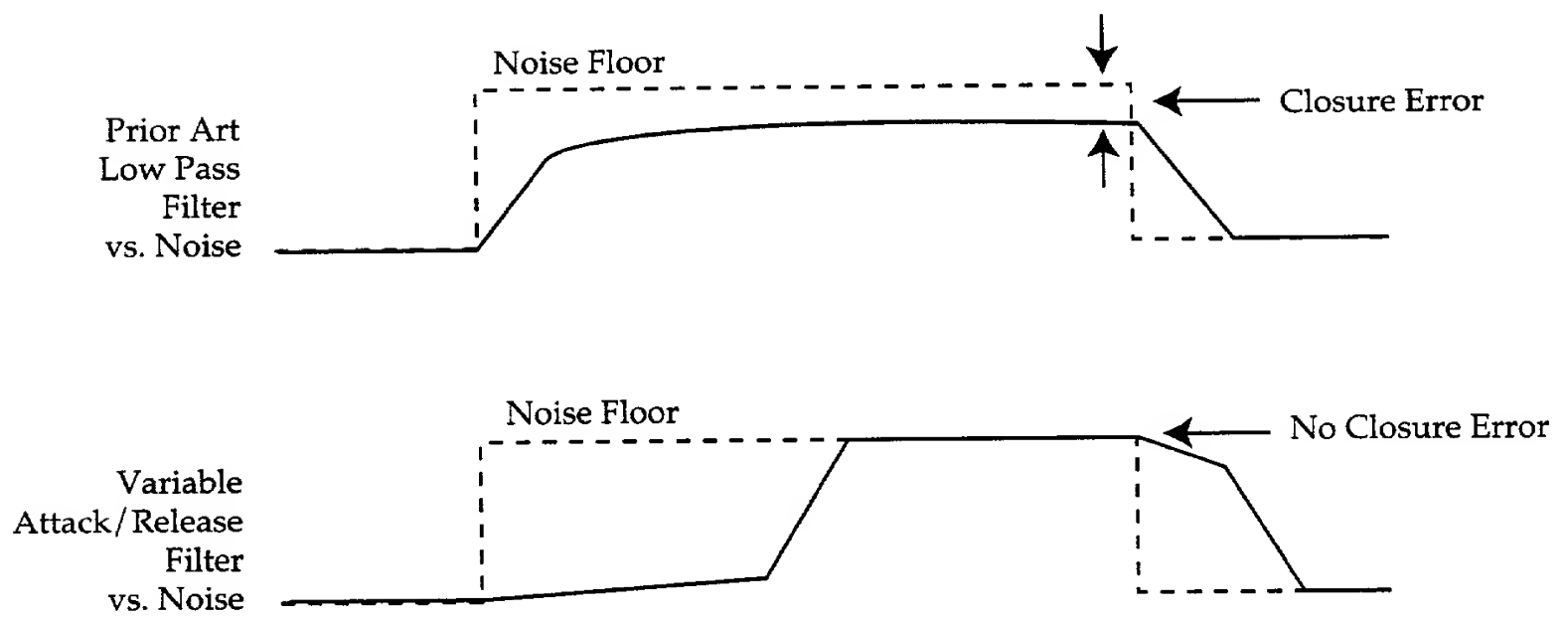


FIG. 55B

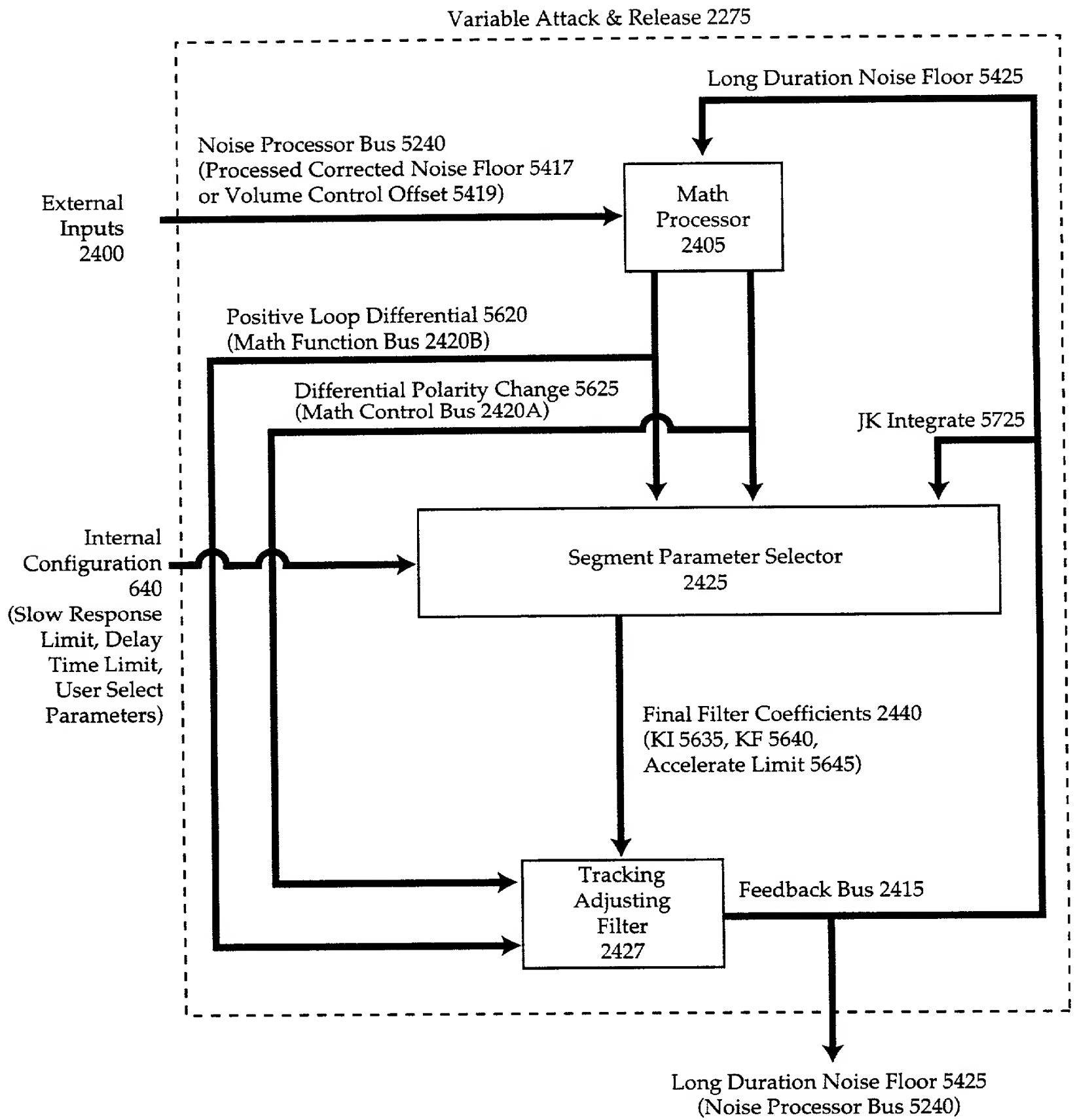


FIG. 55C

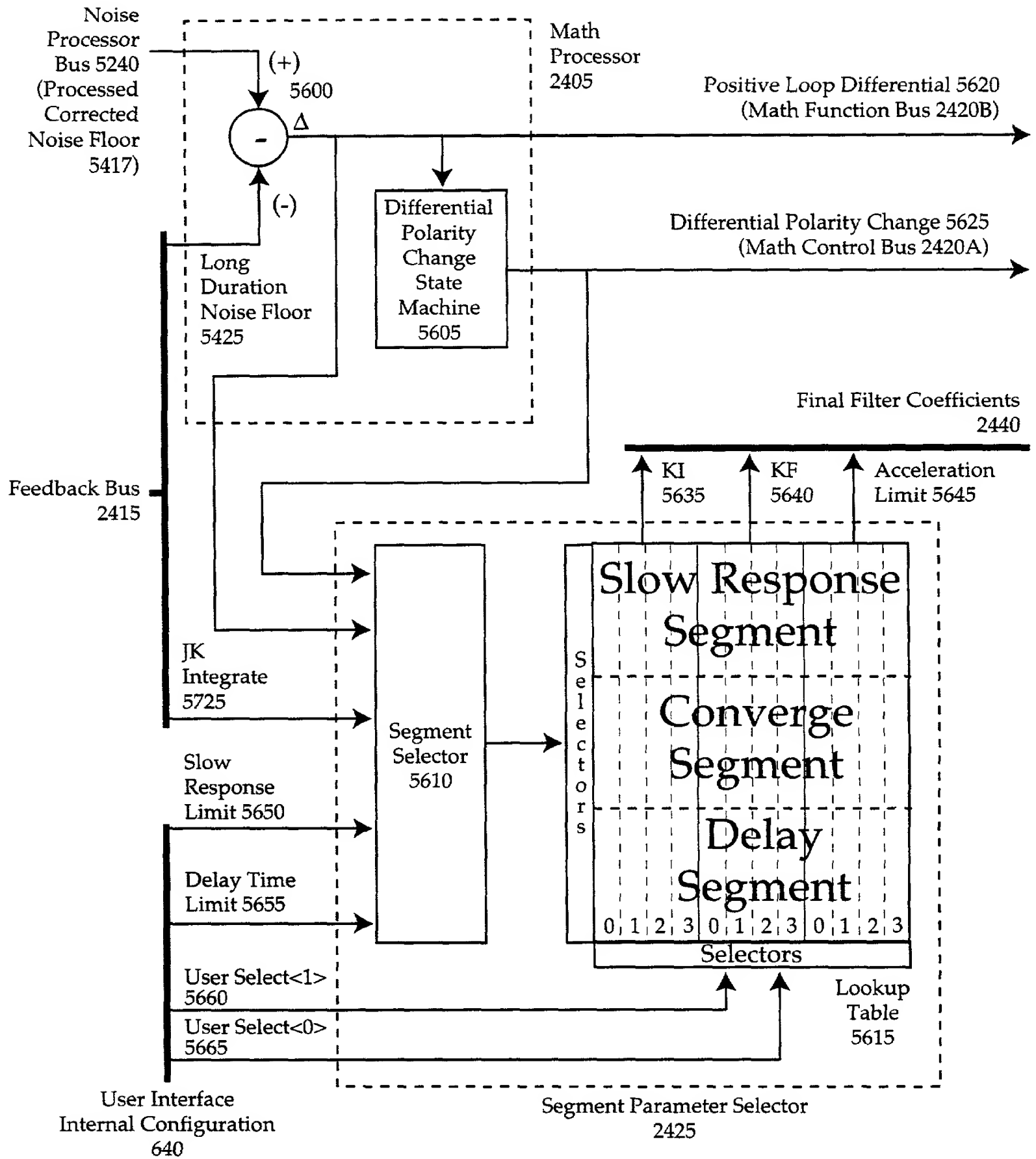
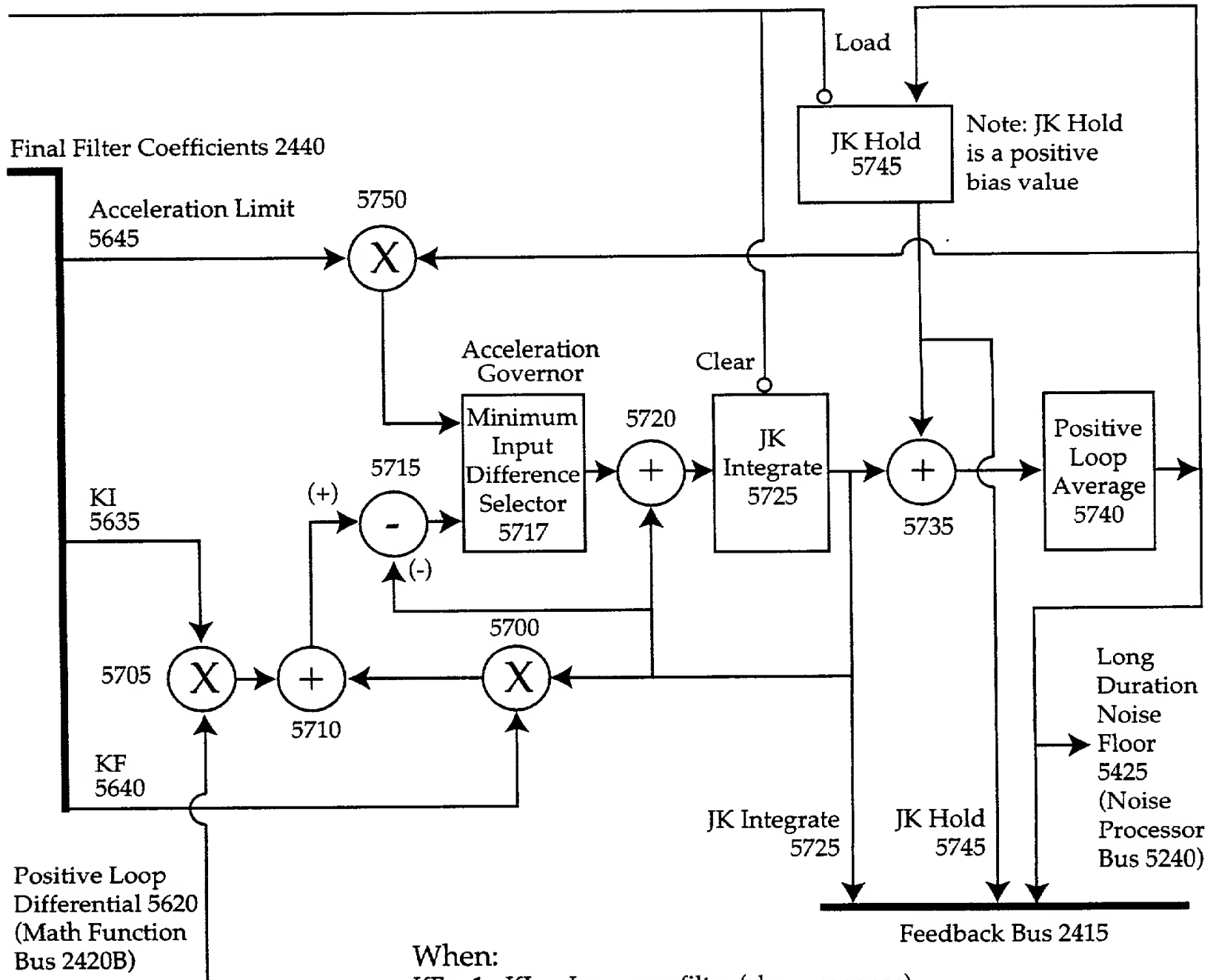


FIG. 56

Differential Polarity Change 5625
(Math Control Bus 2420A)



When:

- | | |
|-------------|------------------------------------|
| KF = 1 - KI | Low pass filter (slow response) |
| KF = 1 | Integrator (delay response) |
| KF > 1 | Accelerating Integrator (converge) |

FIG. 57A

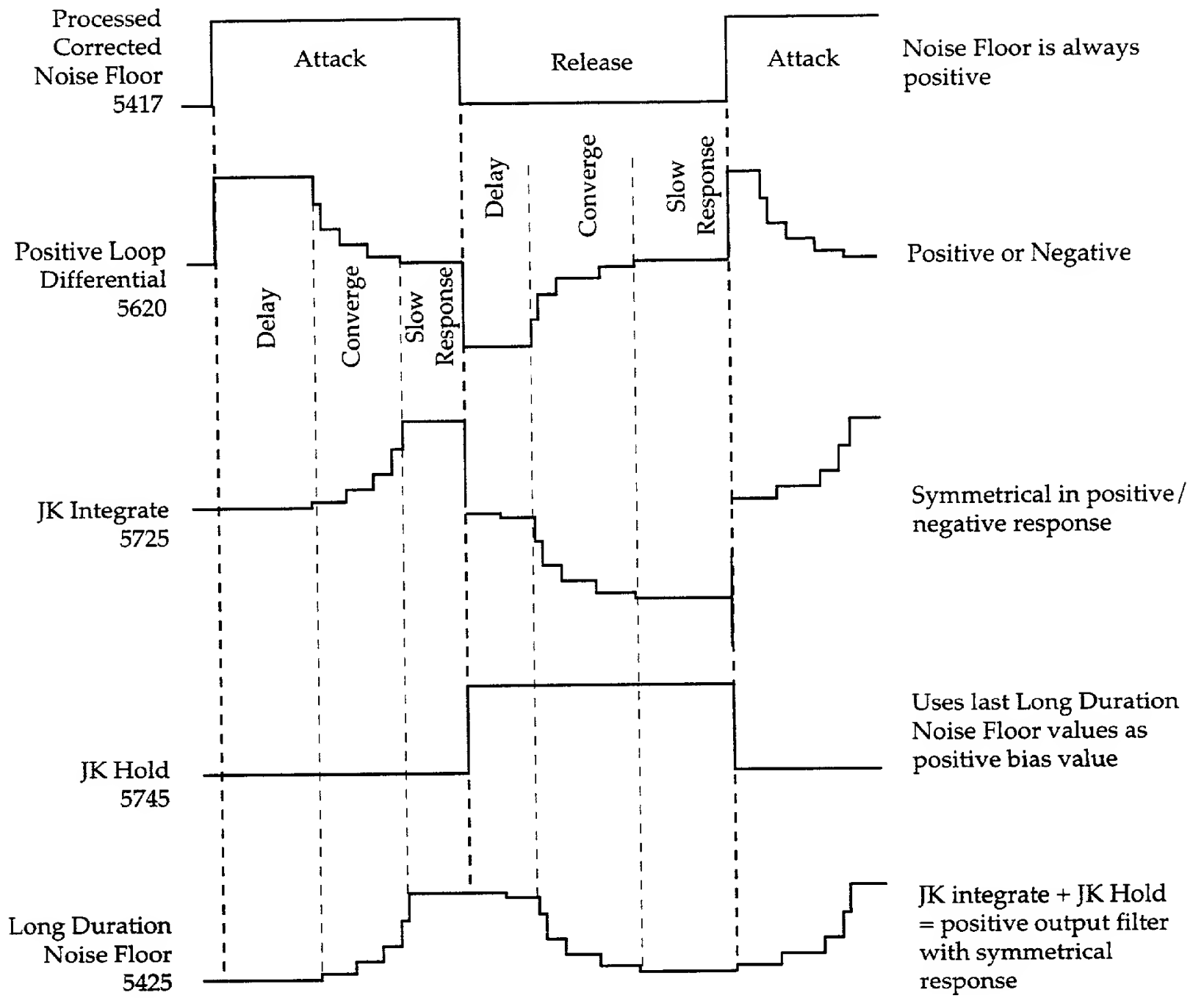


FIG. 57B

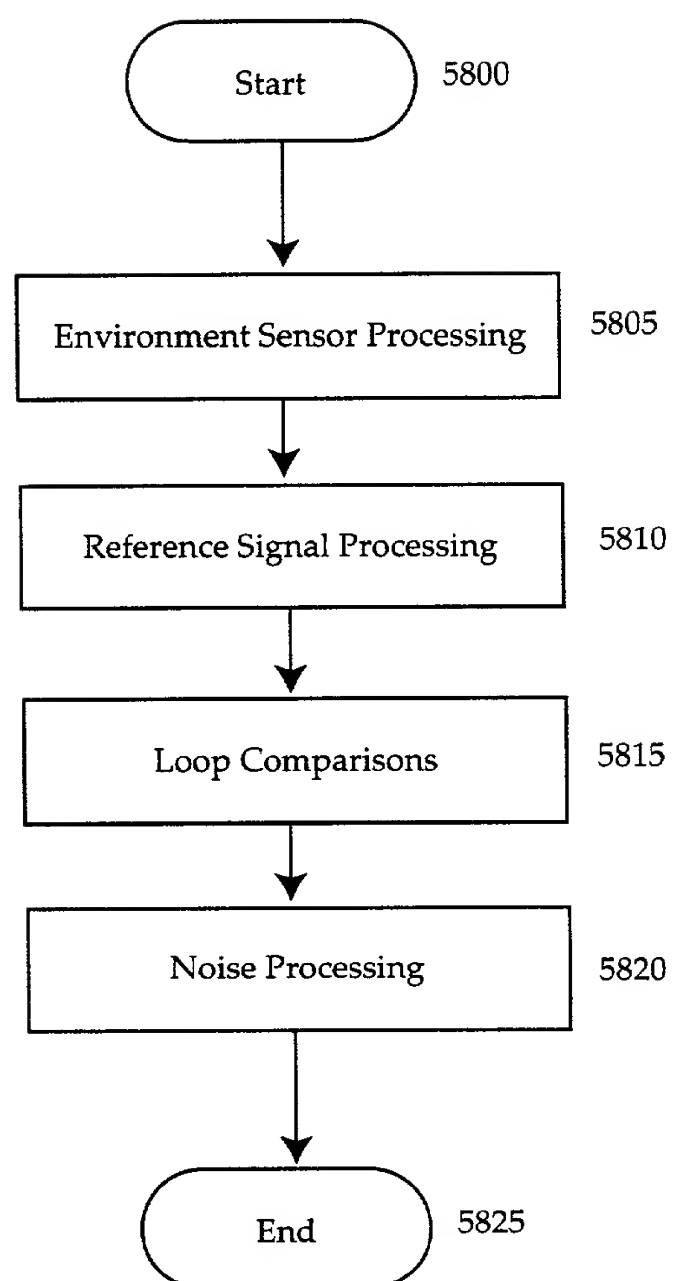


FIG. 58

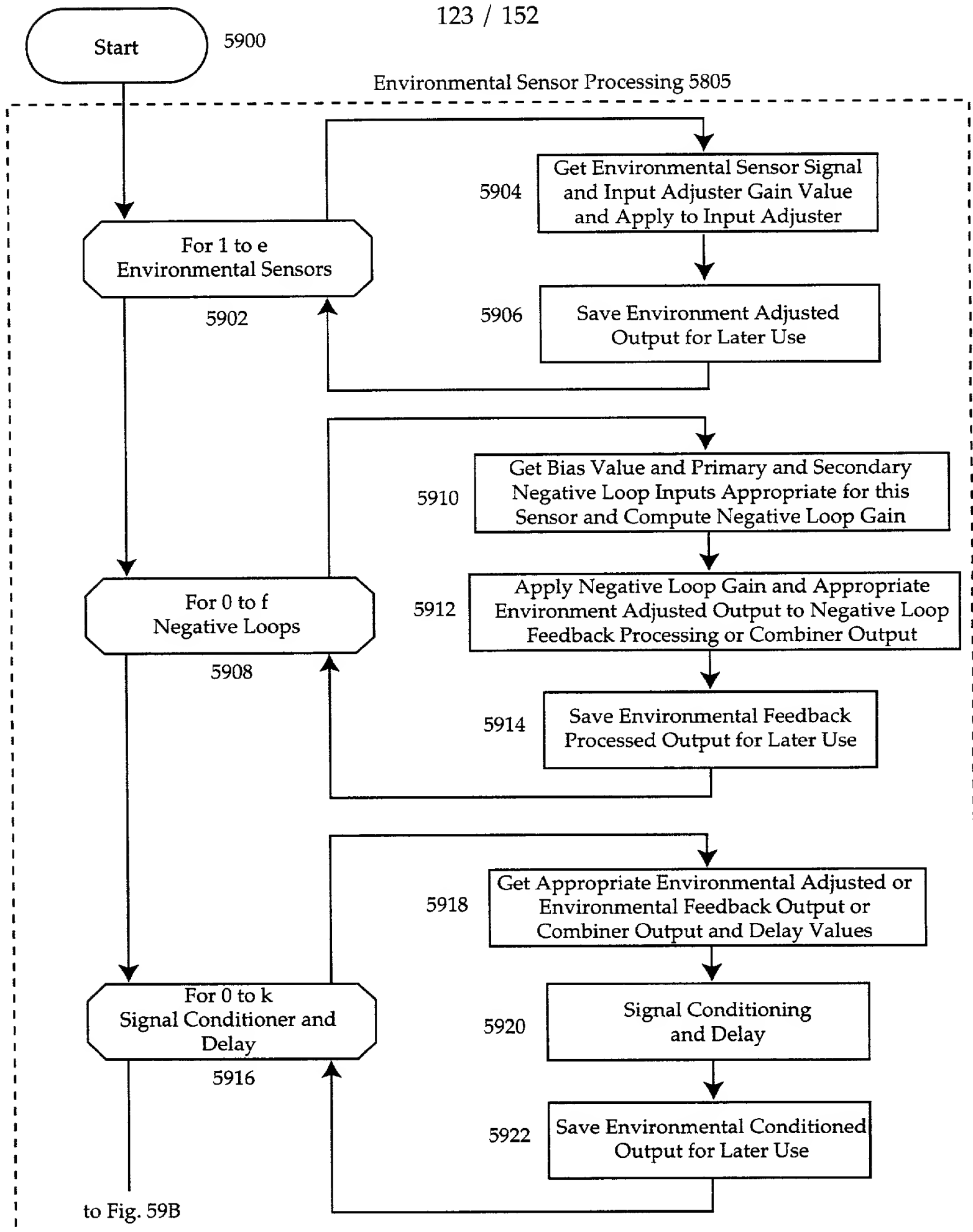


FIG. 59A

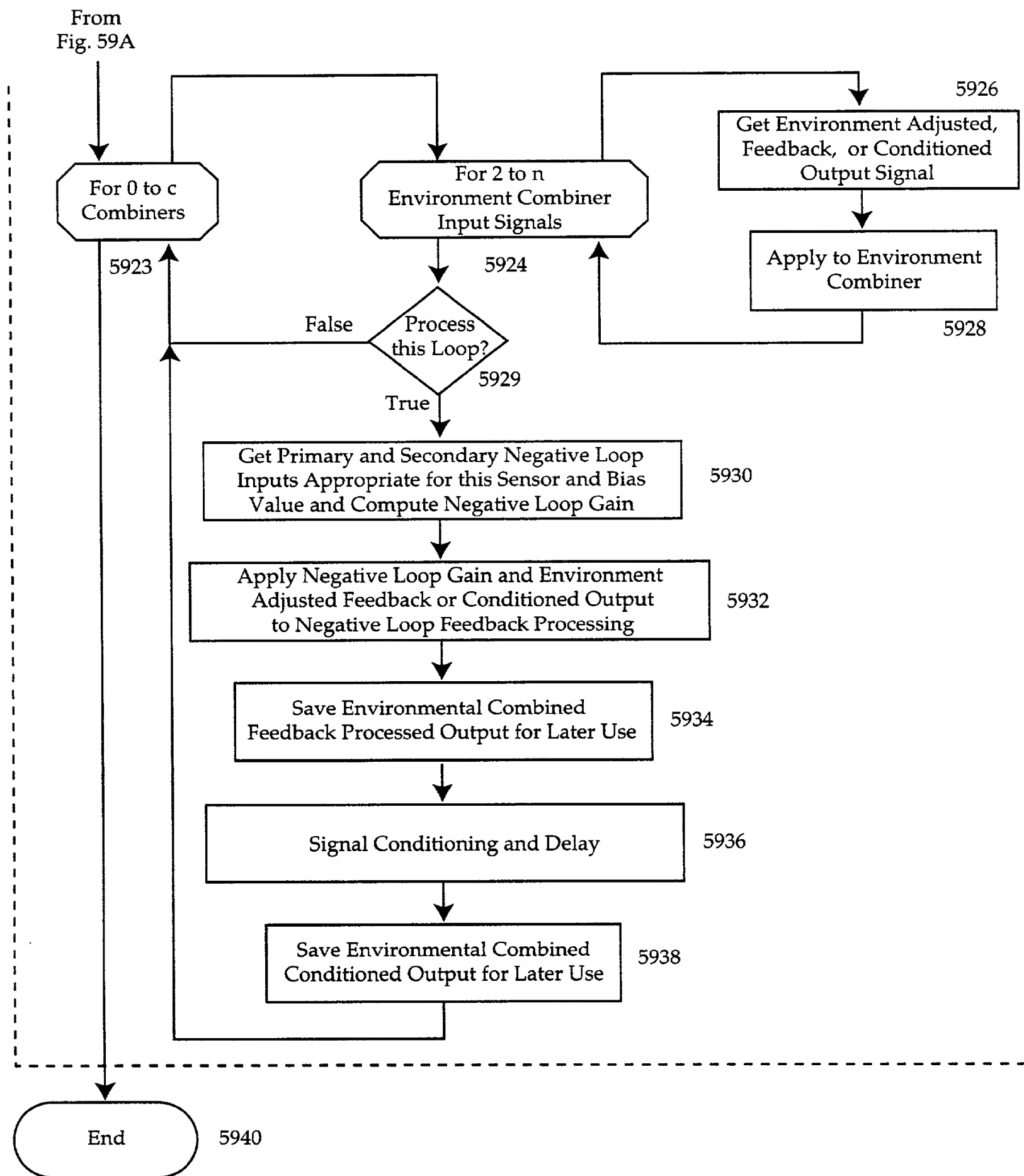


FIG. 59B

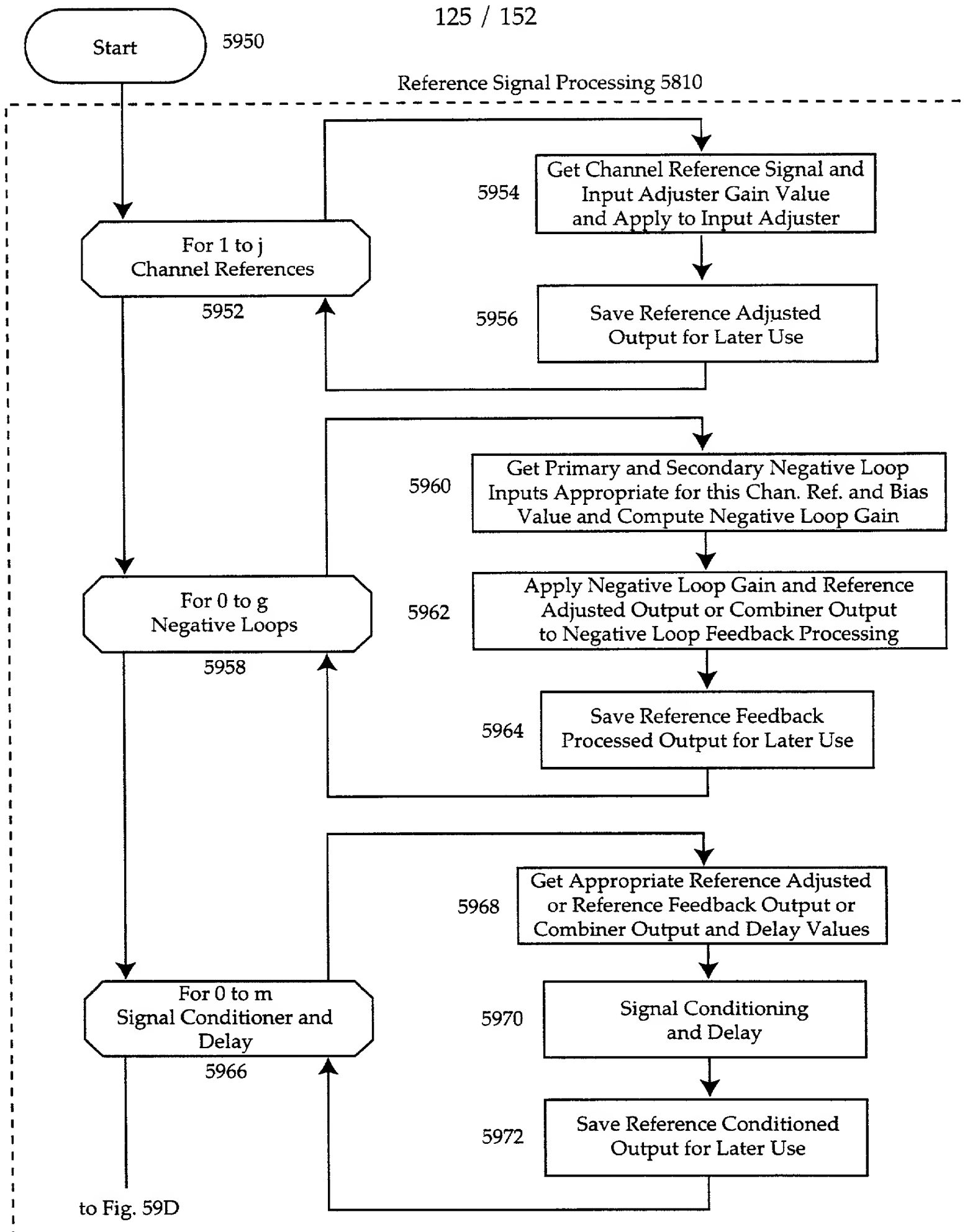


FIG. 59C

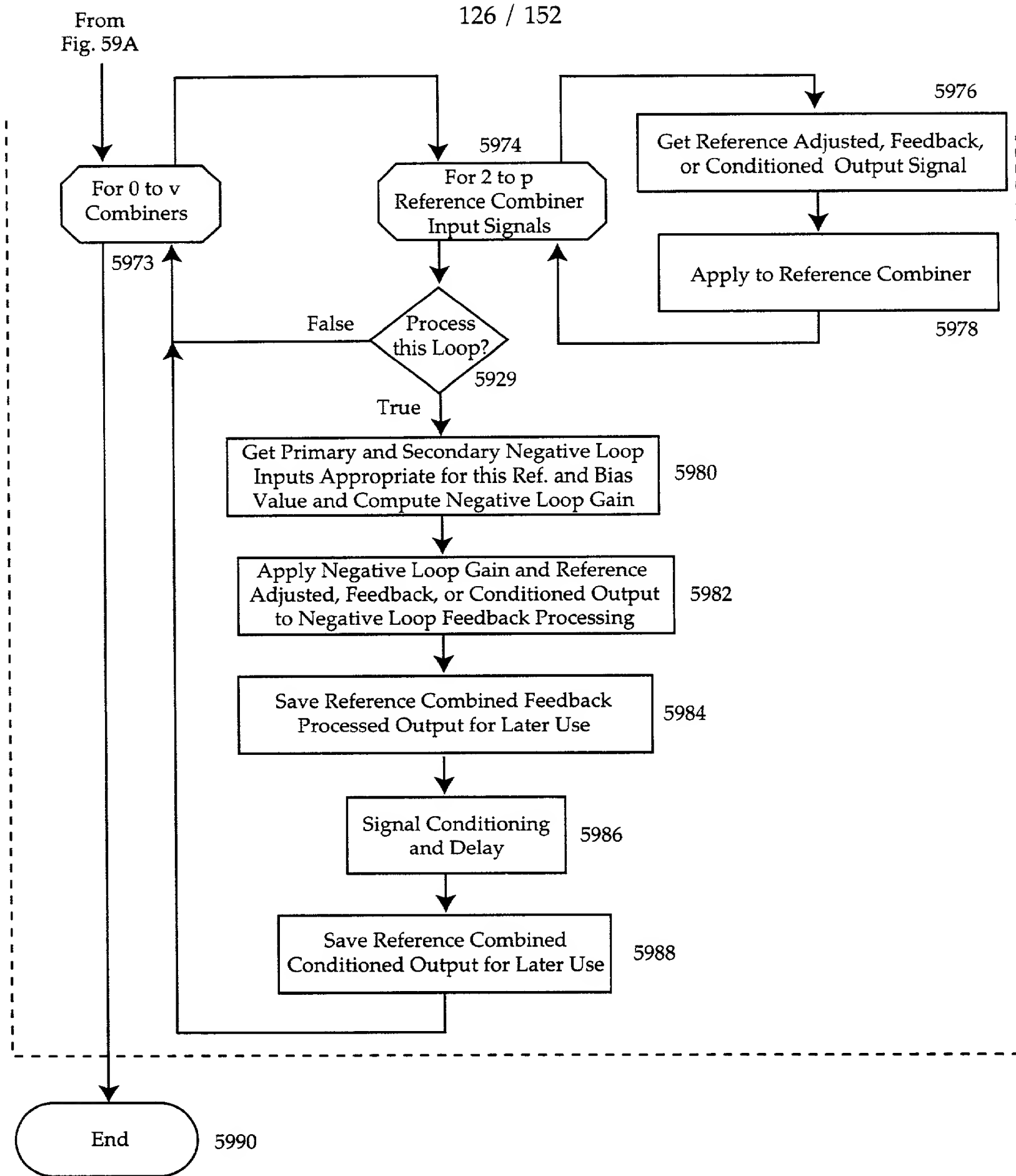


FIG. 59D

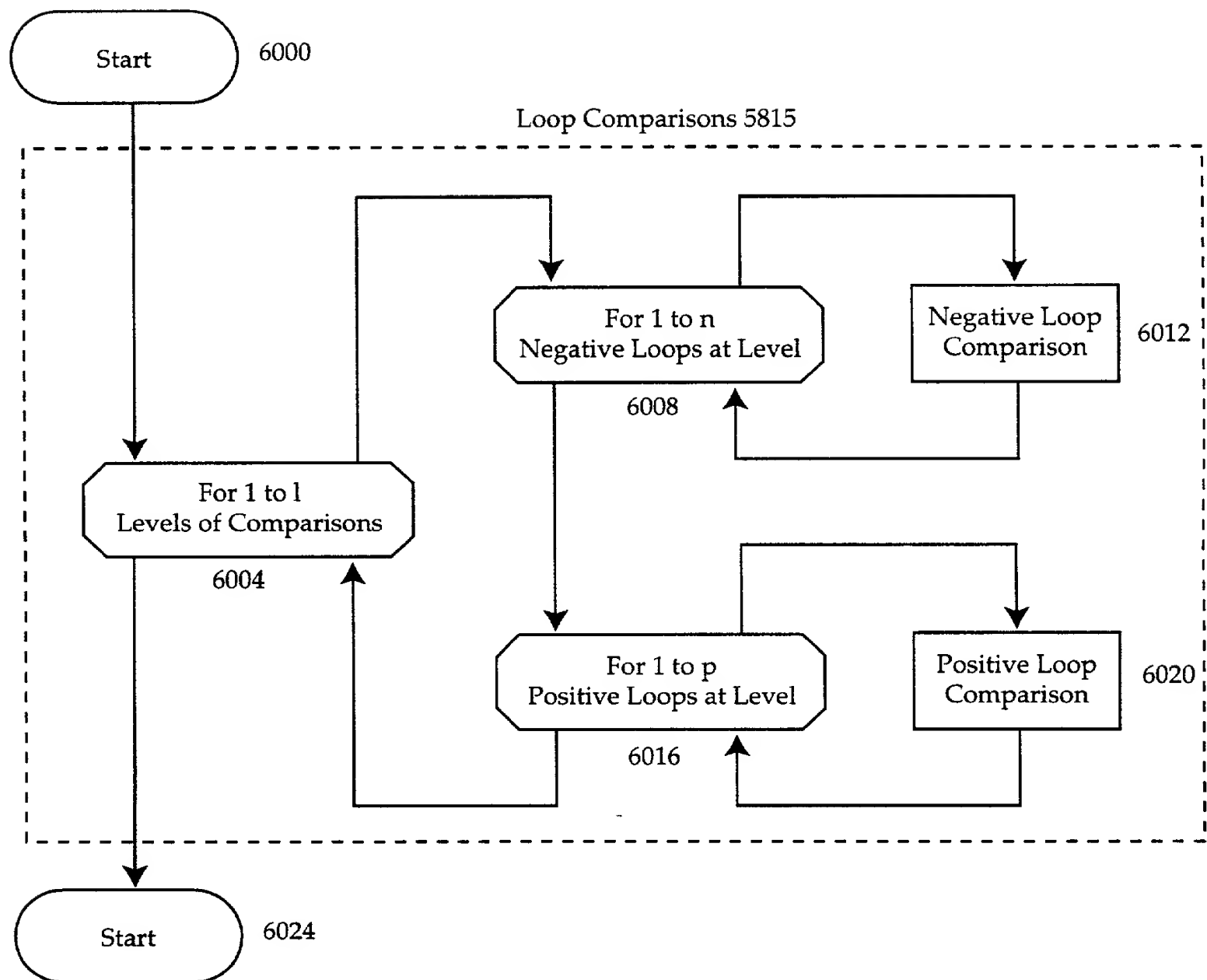


FIG. 60A

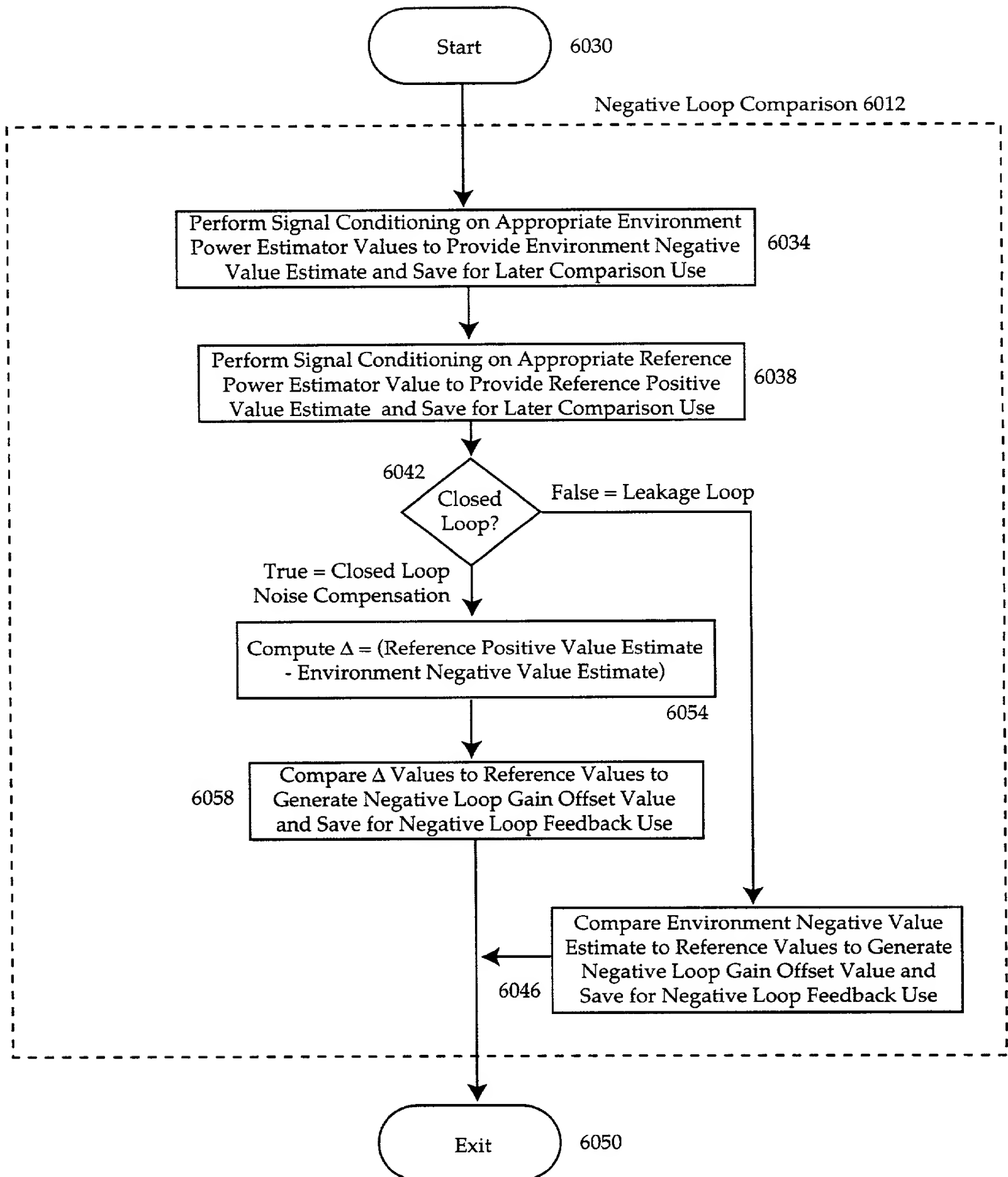


FIG. 60B

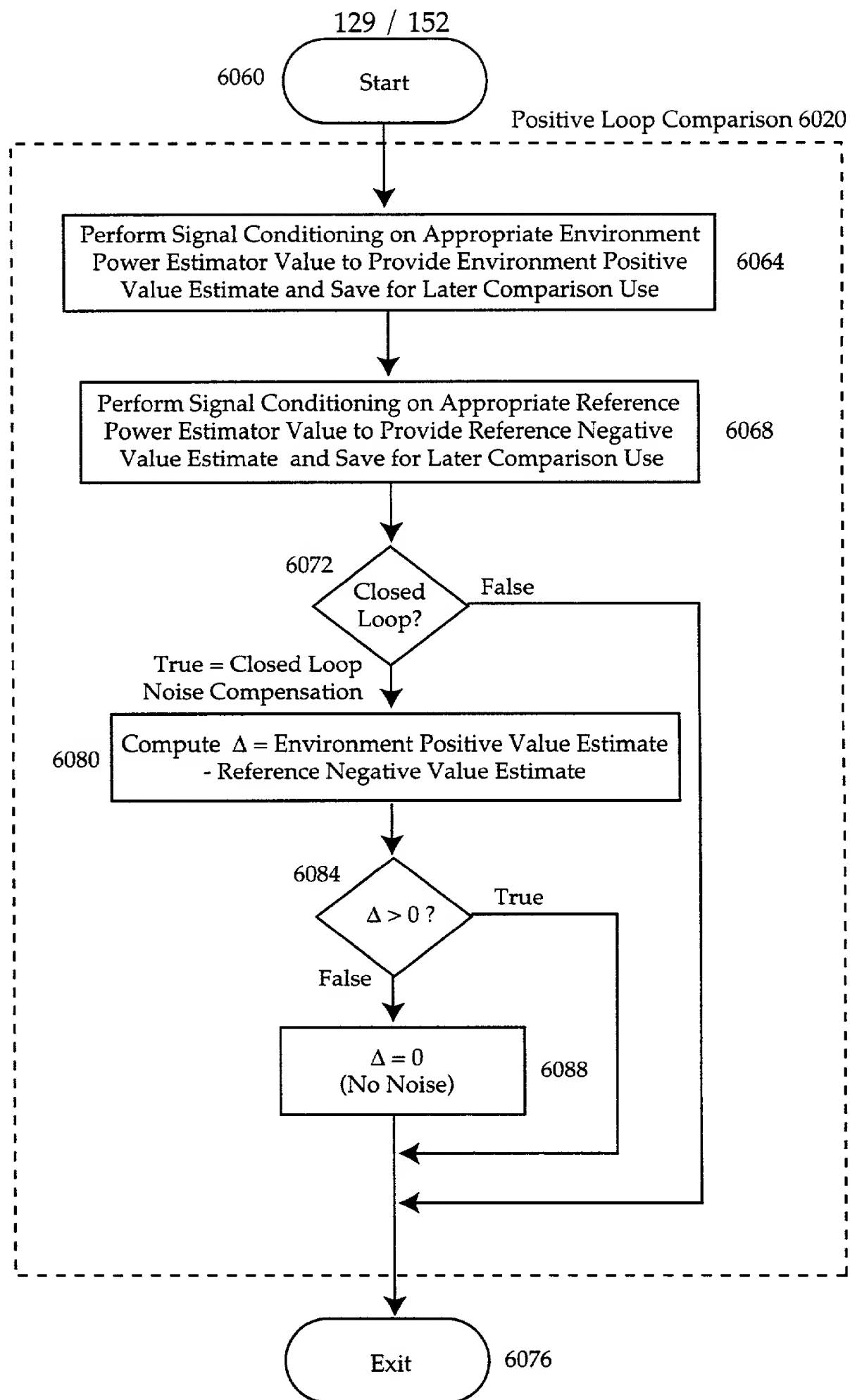


FIG. 60C

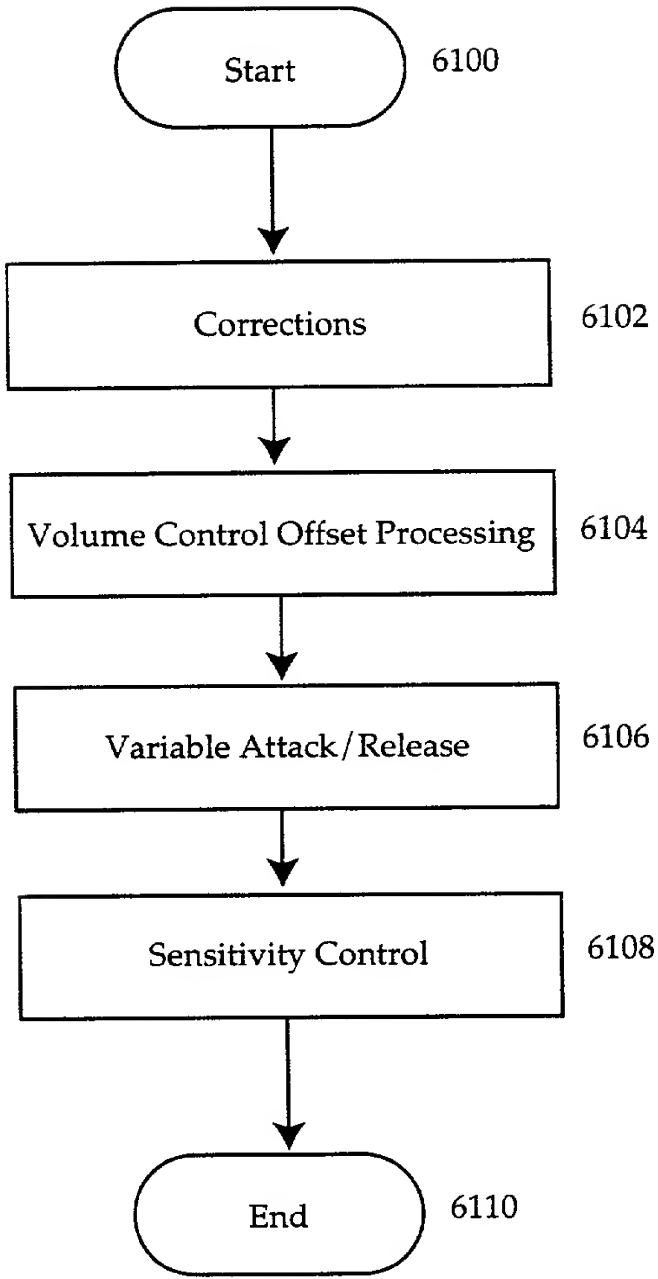


FIG. 61A

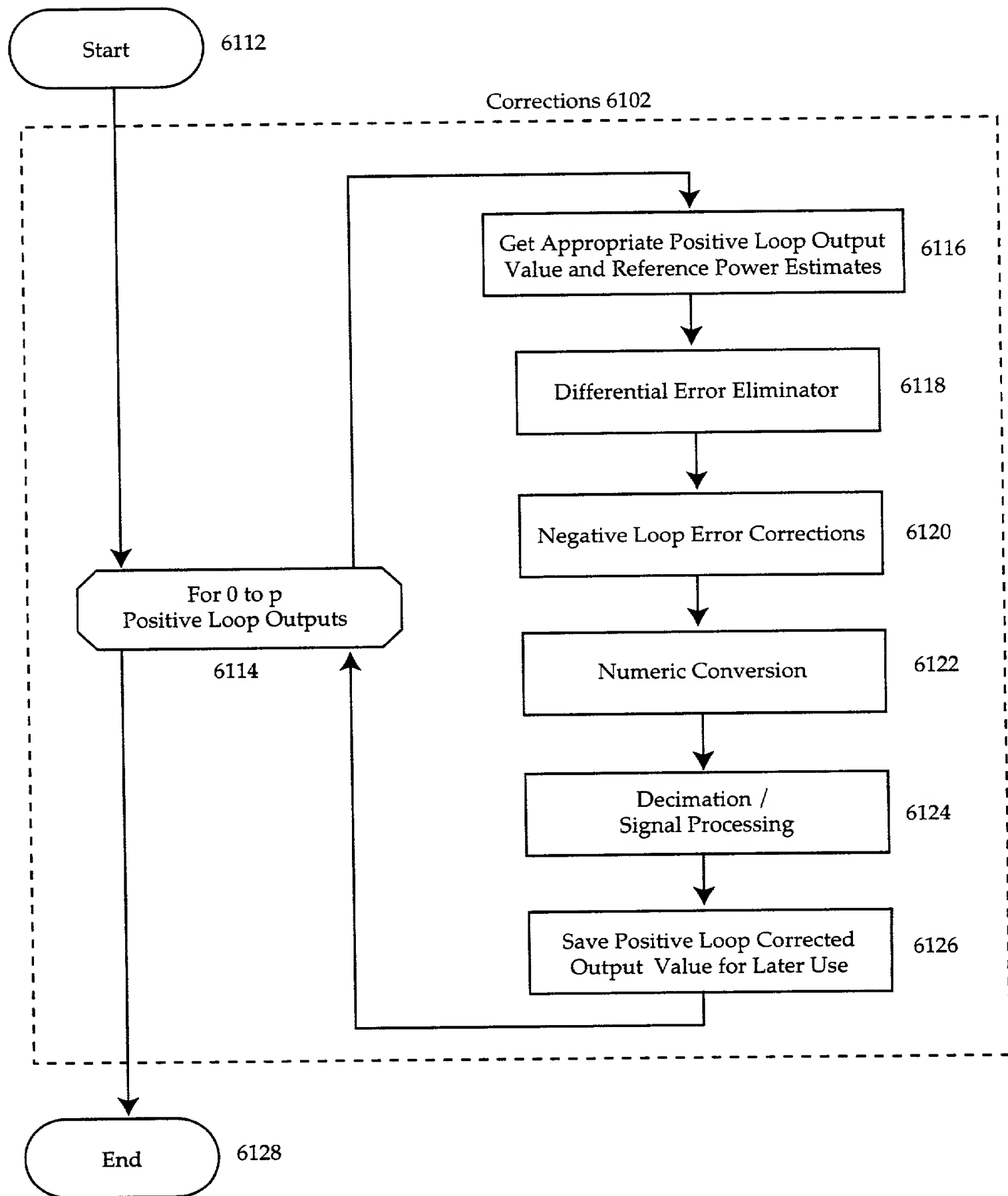


FIG. 61B

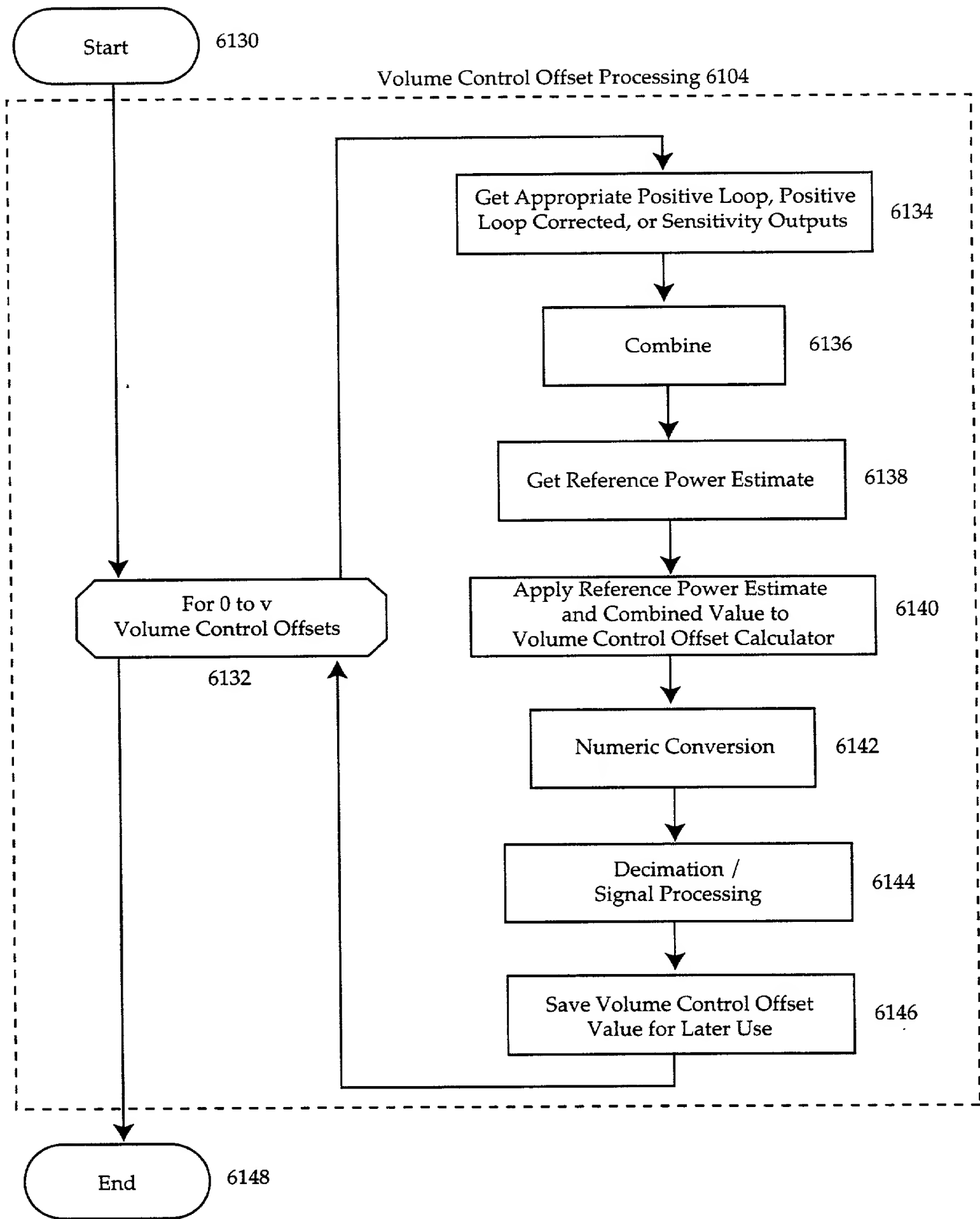


FIG. 61C

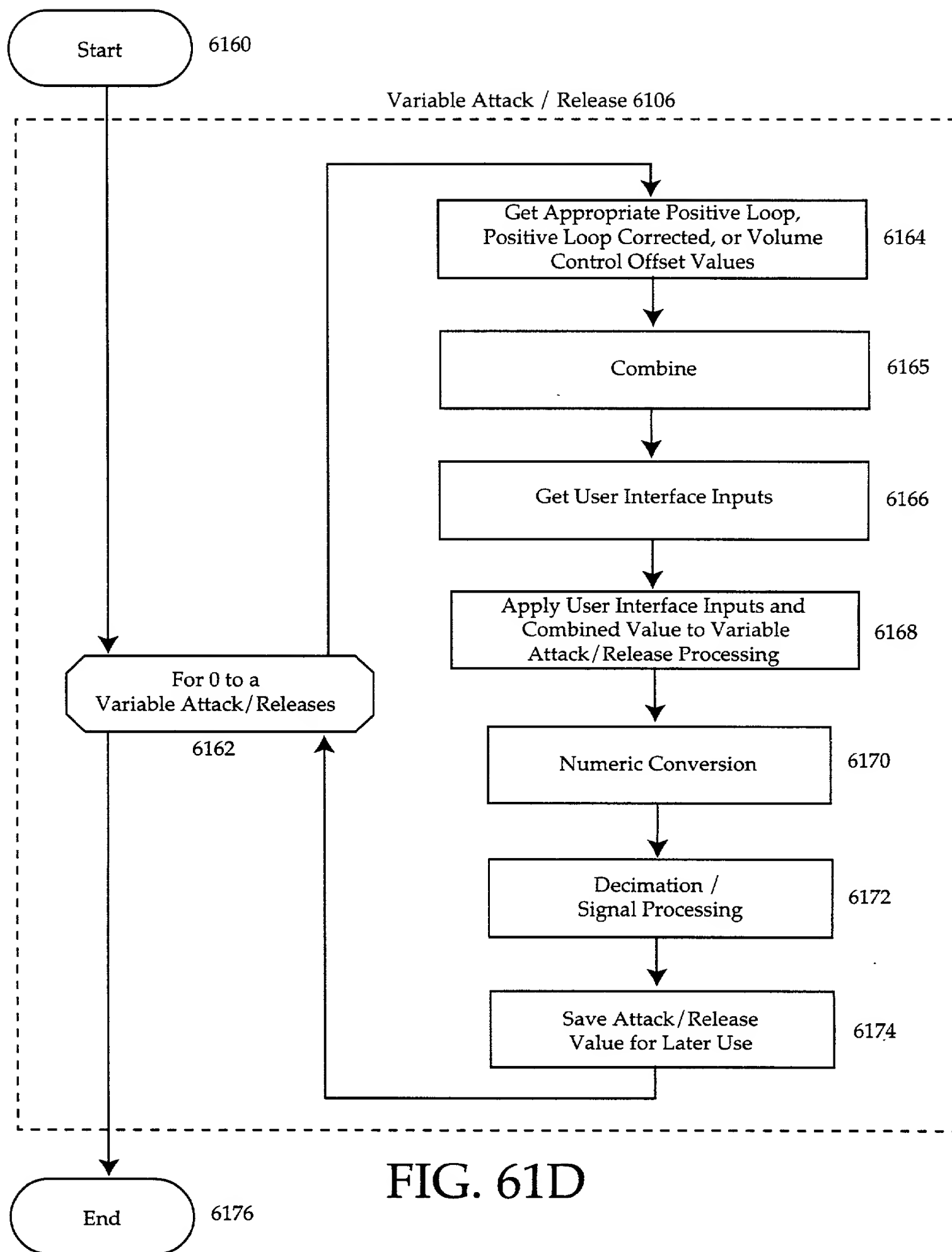


FIG. 61D

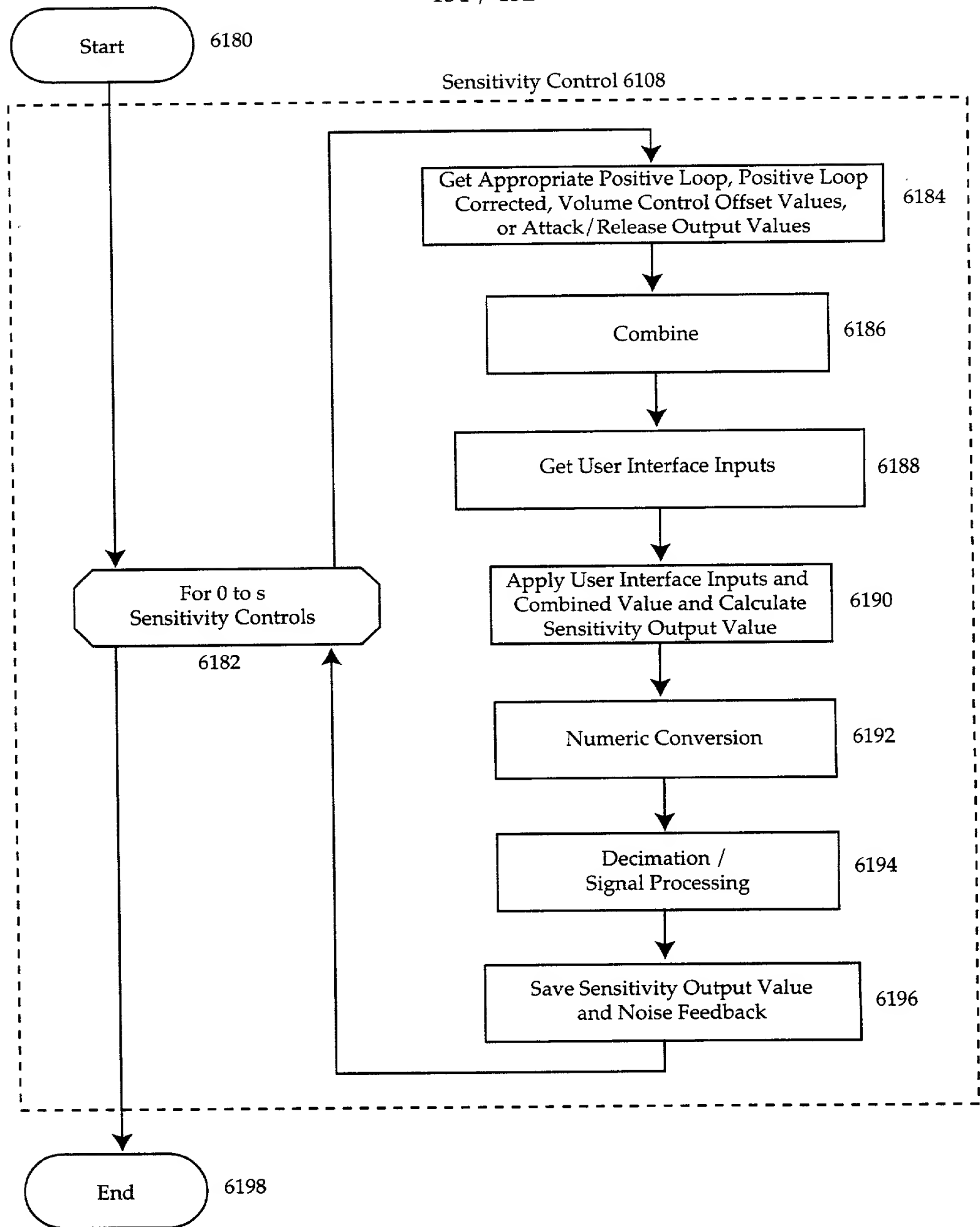


FIG. 61E

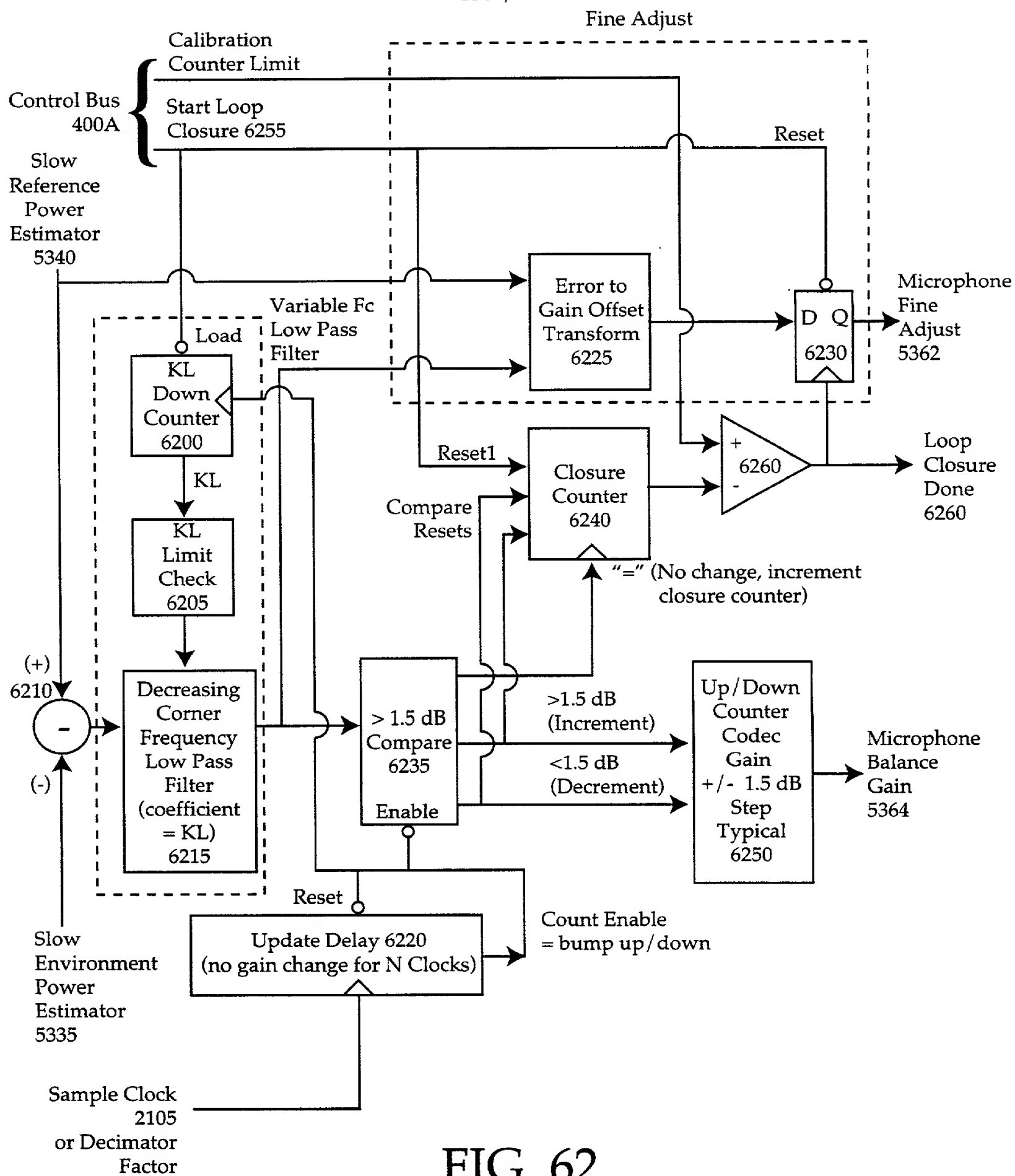


FIG. 62

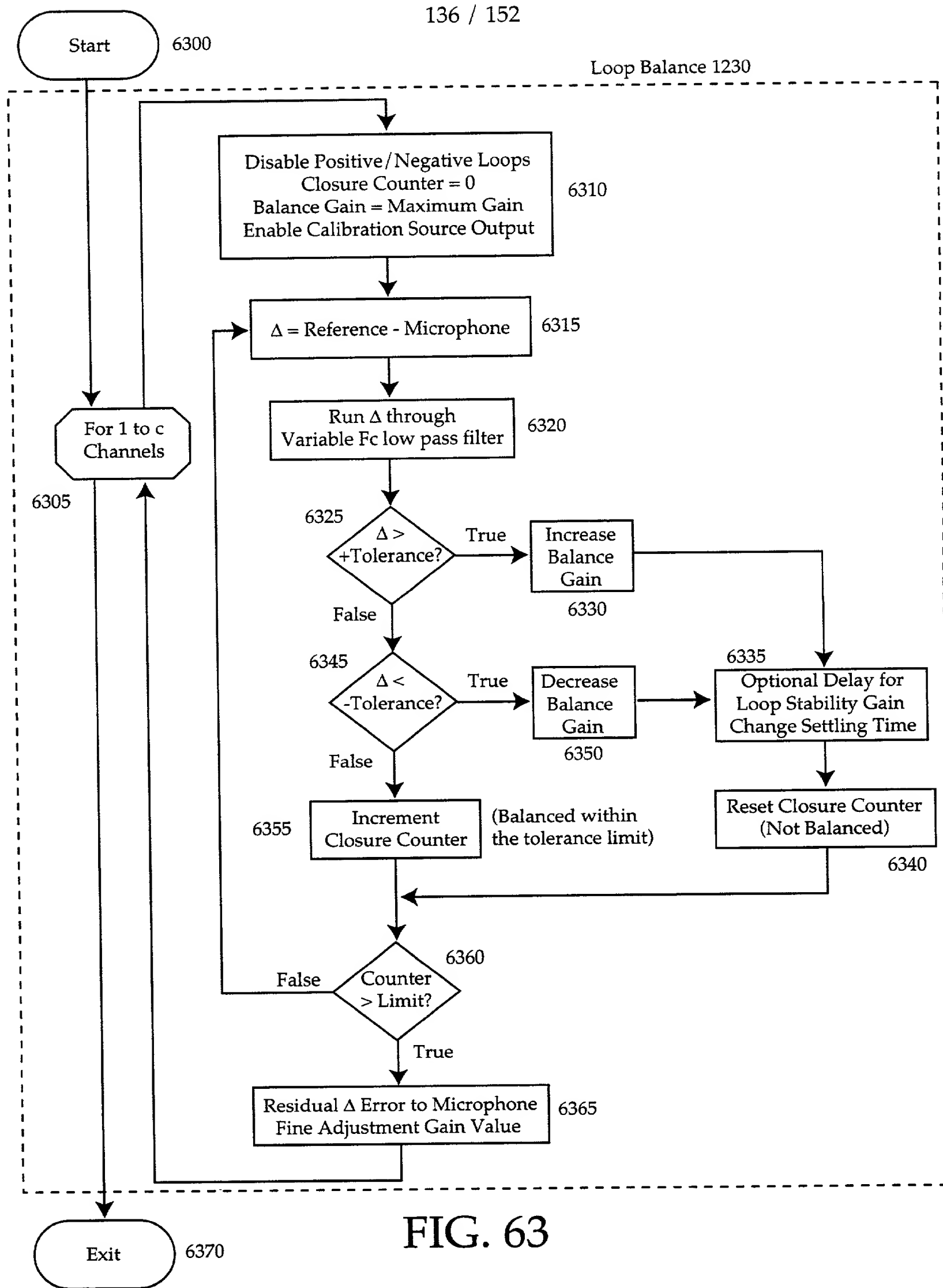


FIG. 63

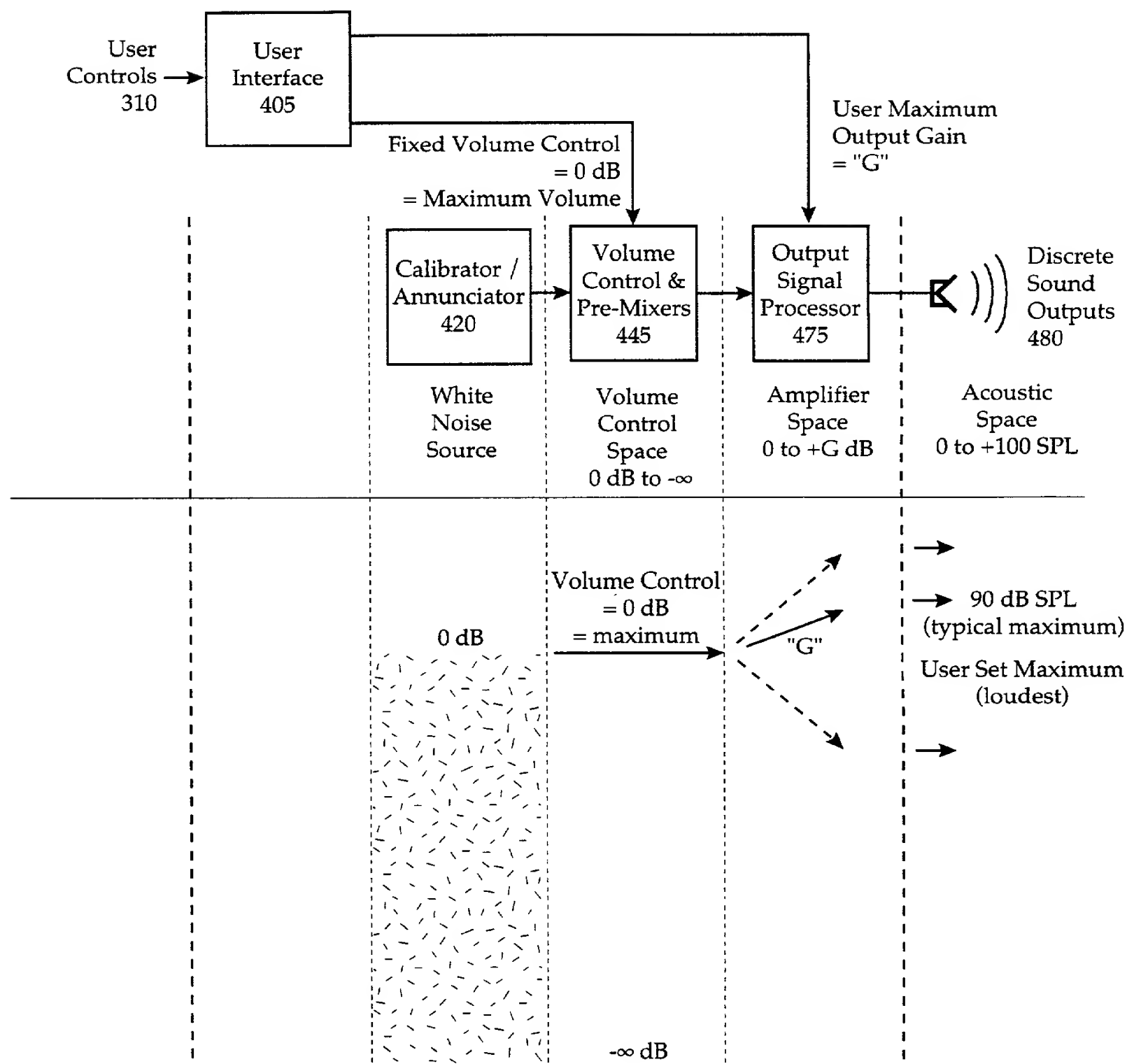


FIG. 64

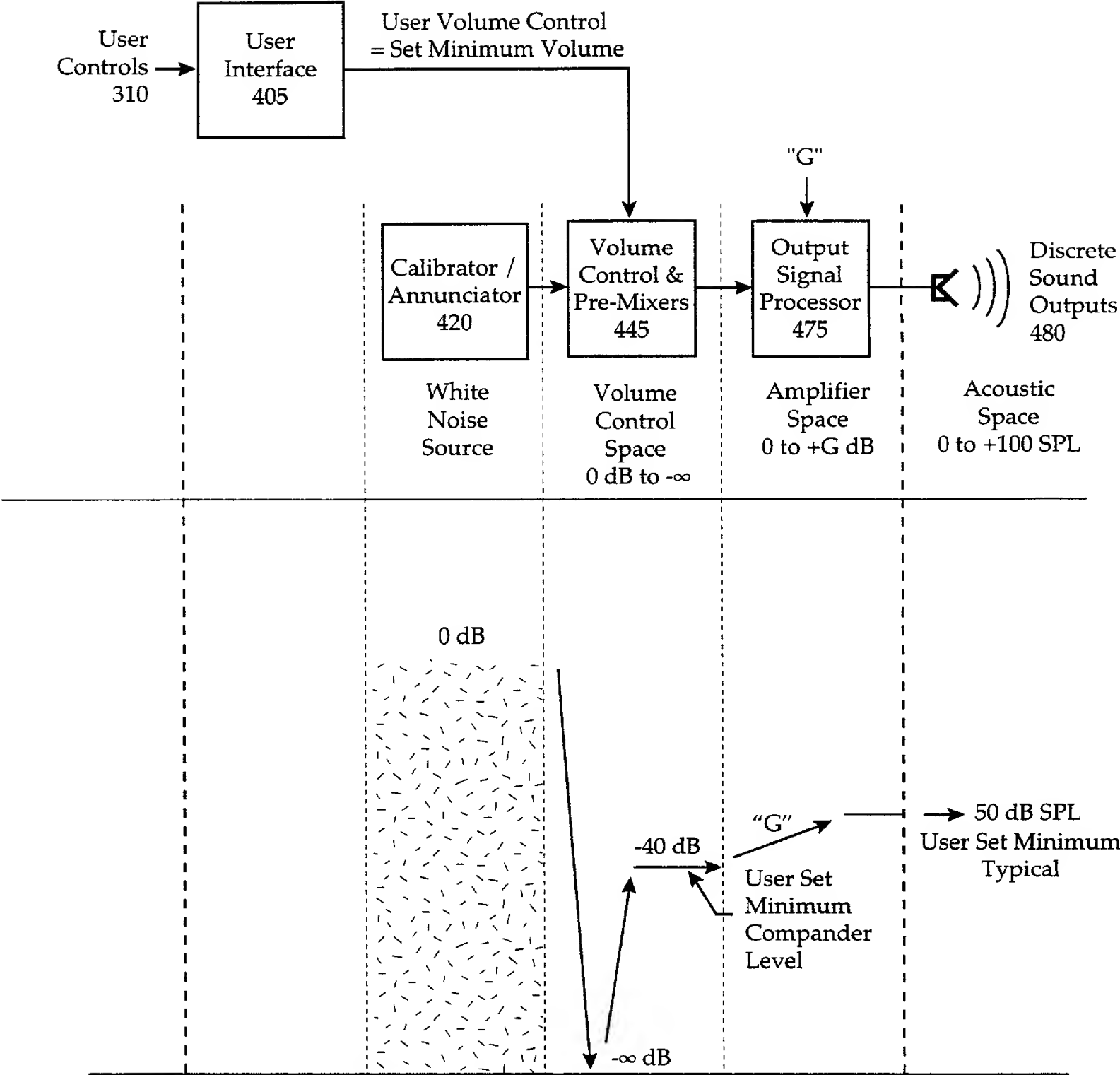


FIG. 65

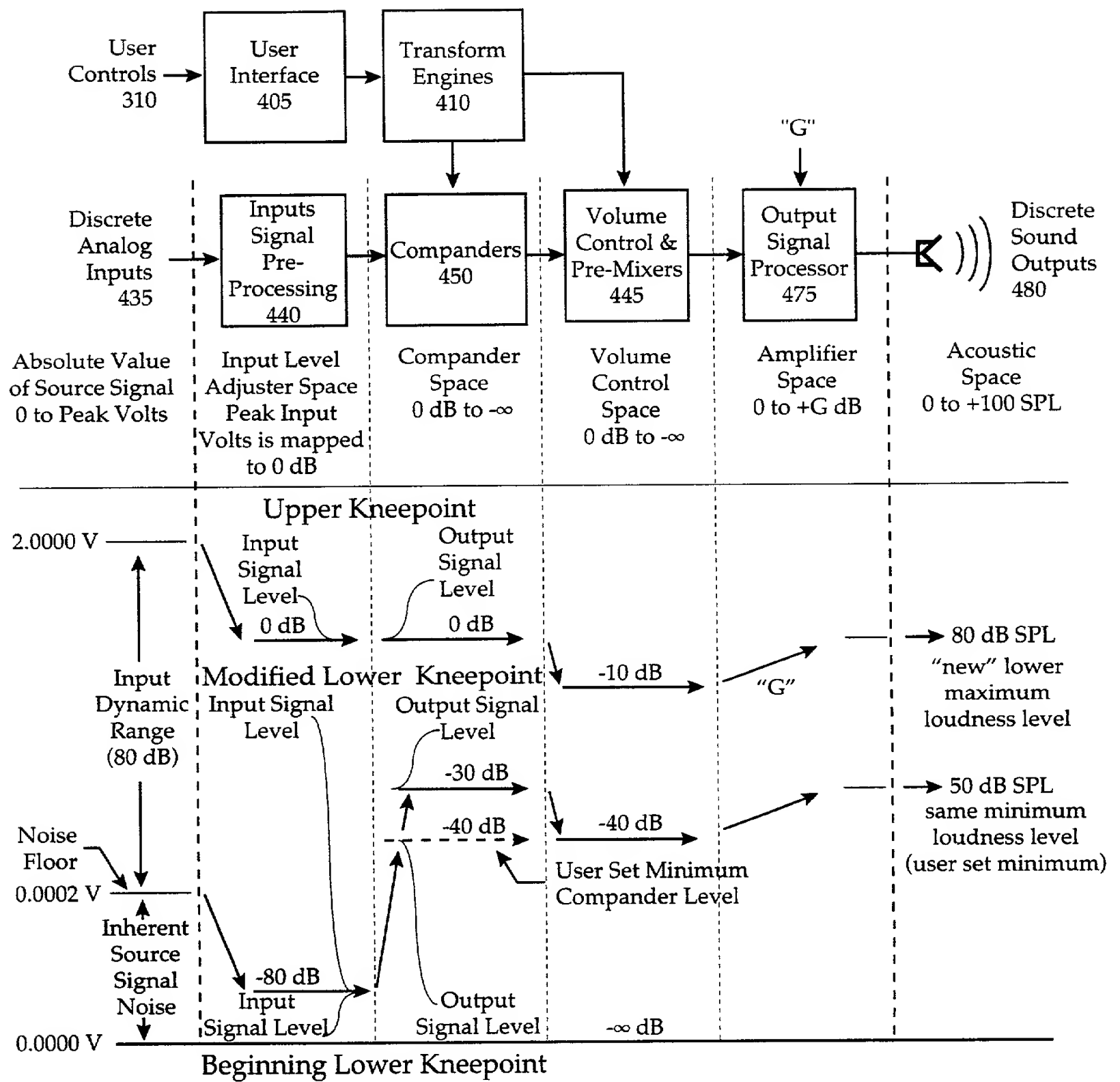


FIG. 66

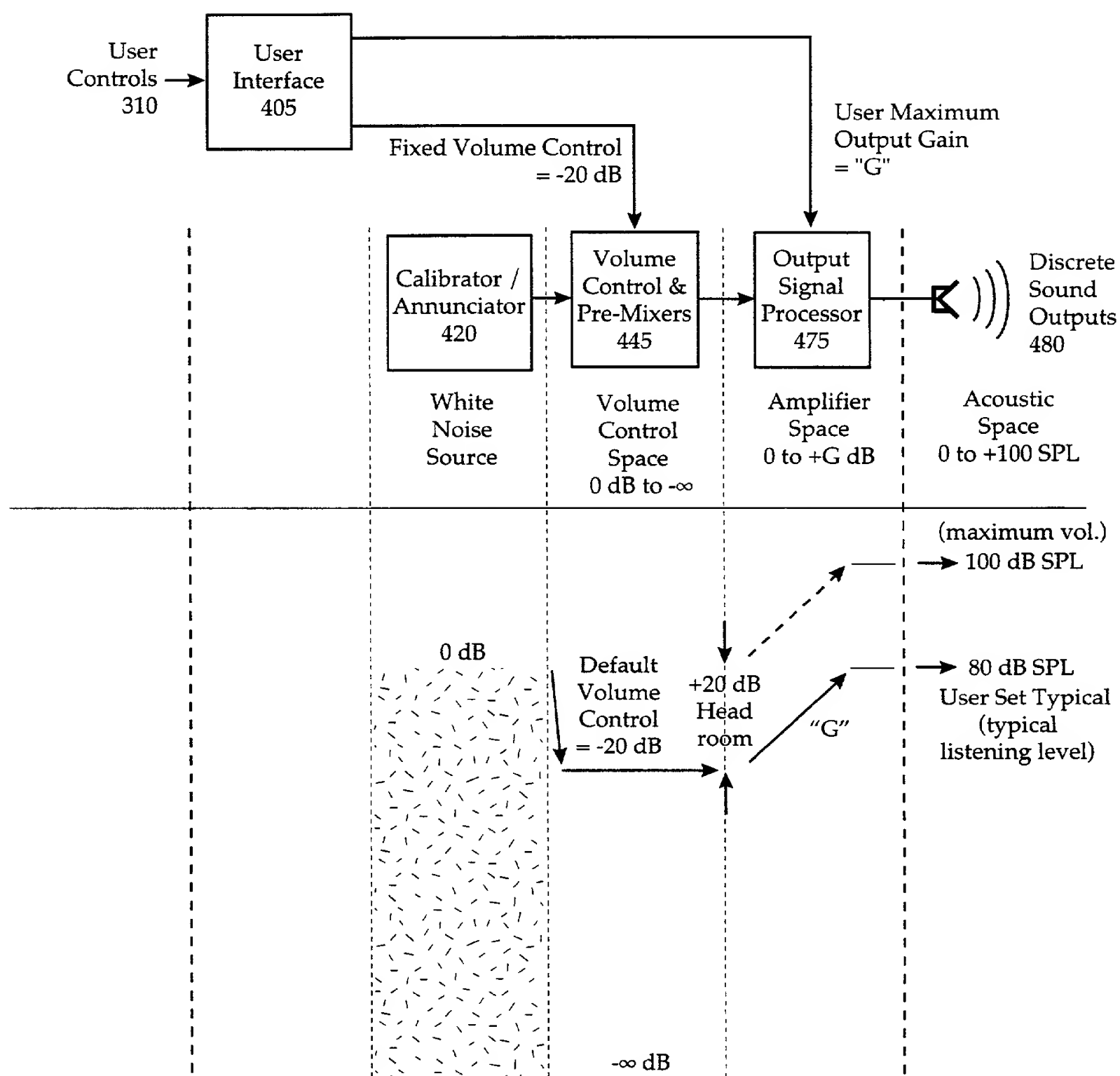


FIG. 67

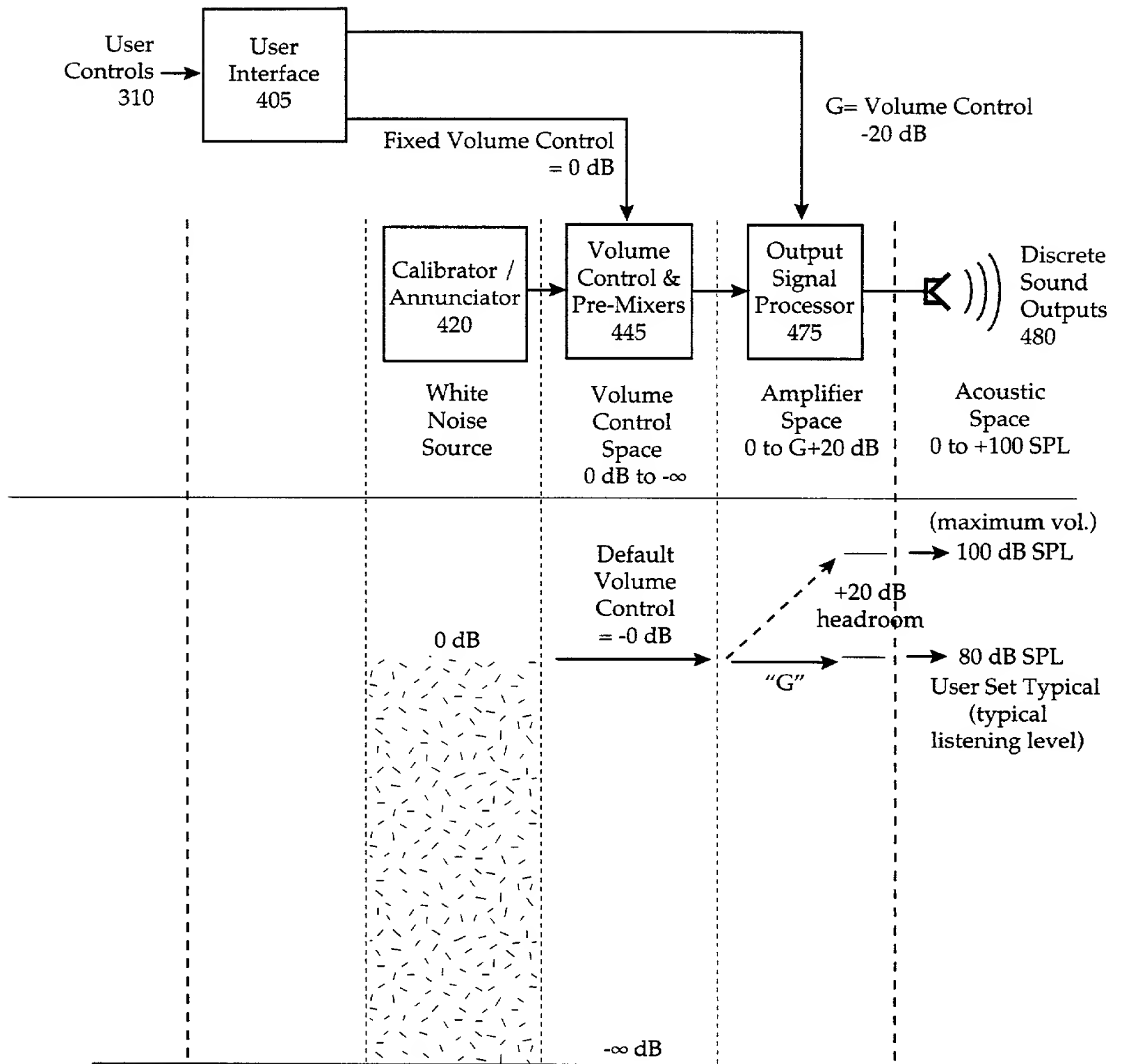


FIG. 68

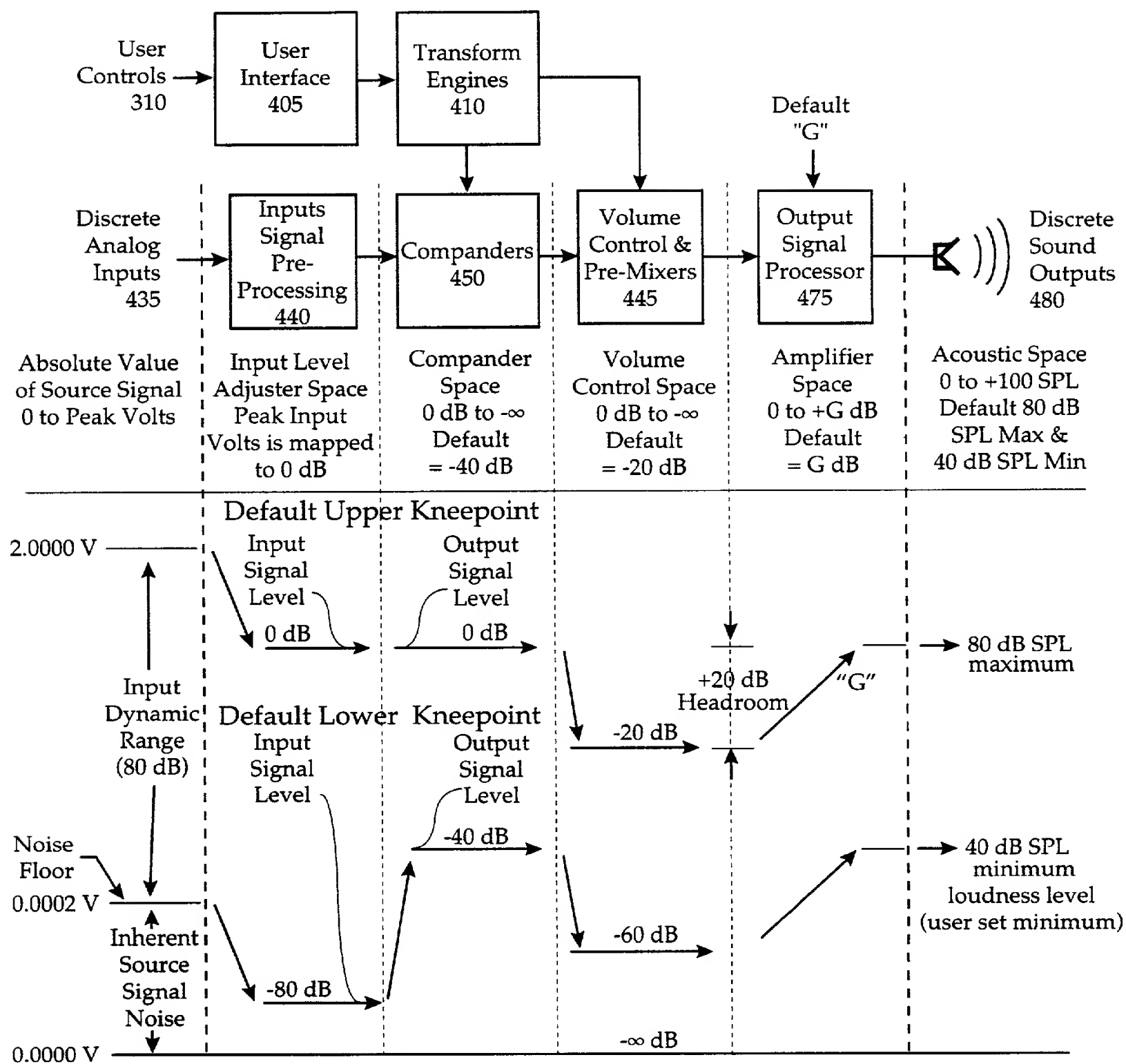


FIG. 69

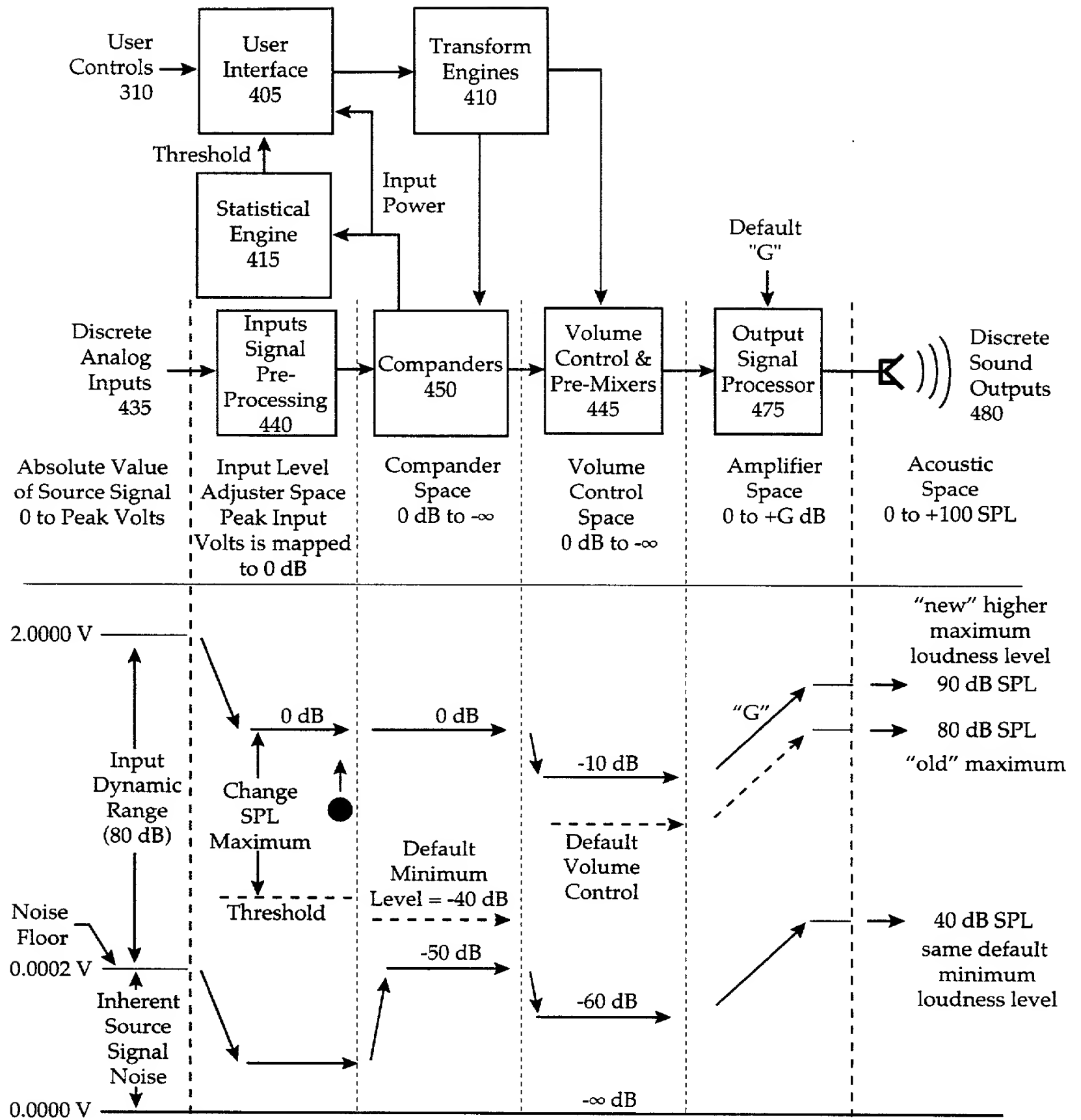


FIG. 70

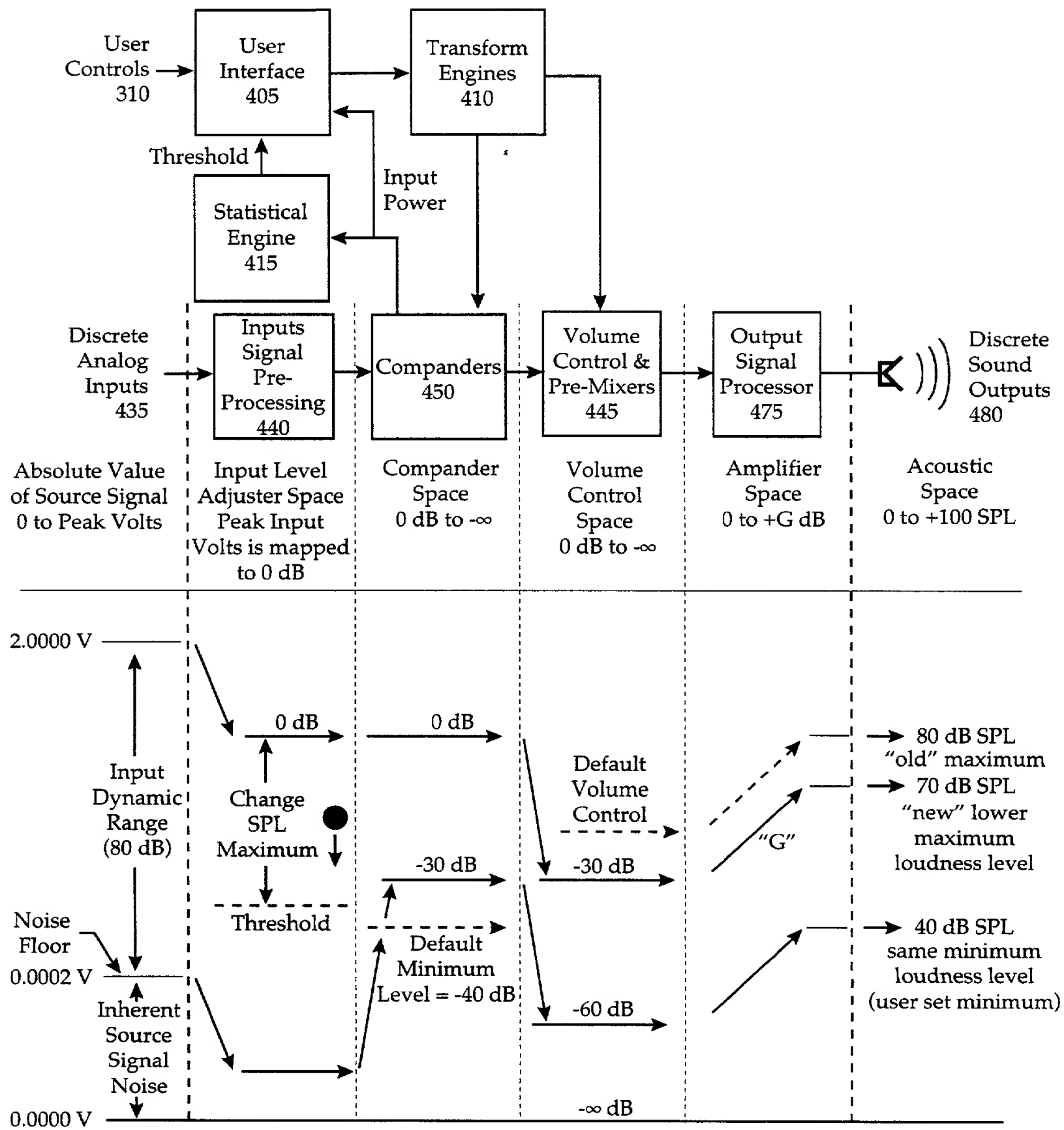


FIG. 71

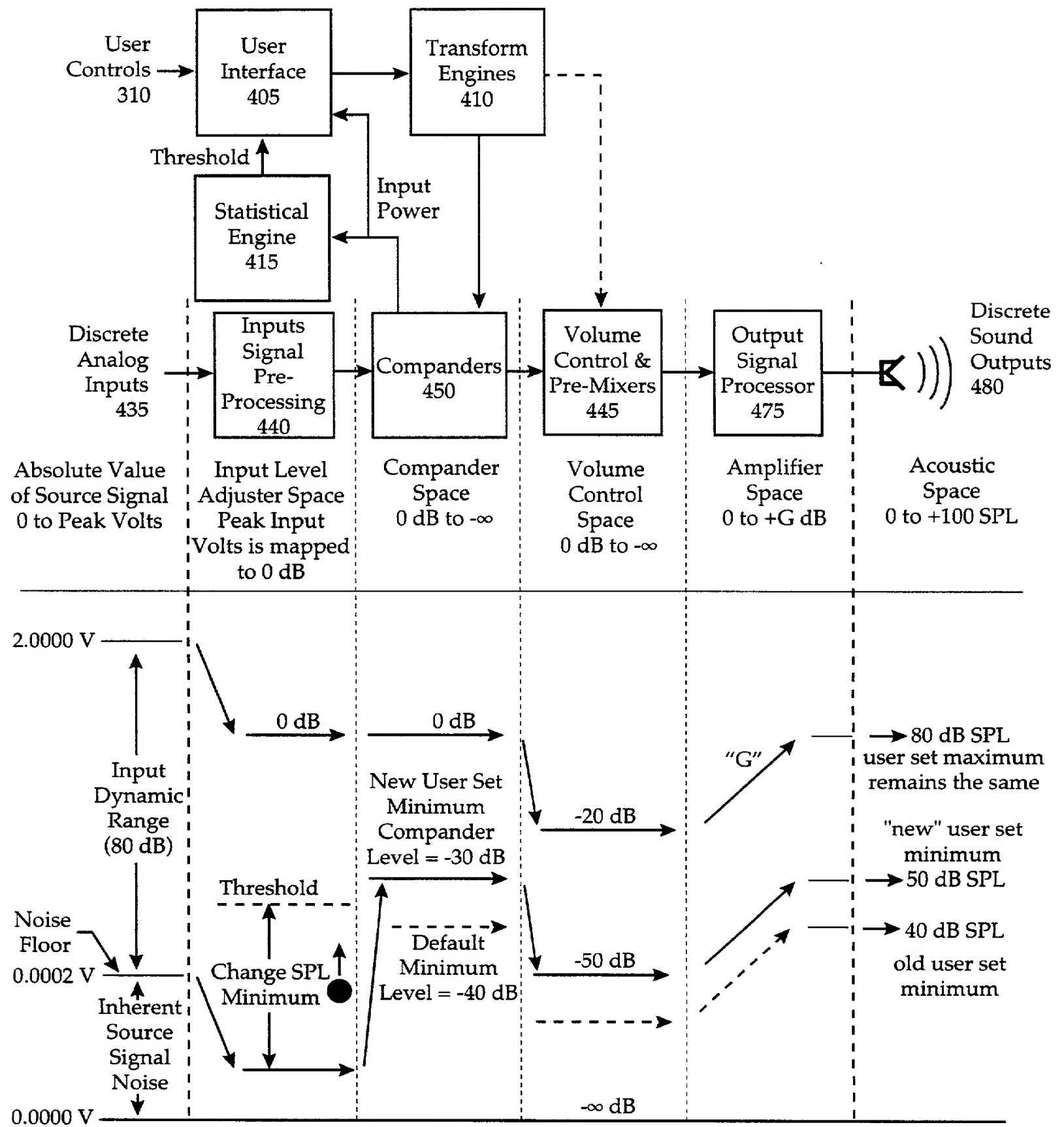


FIG. 72

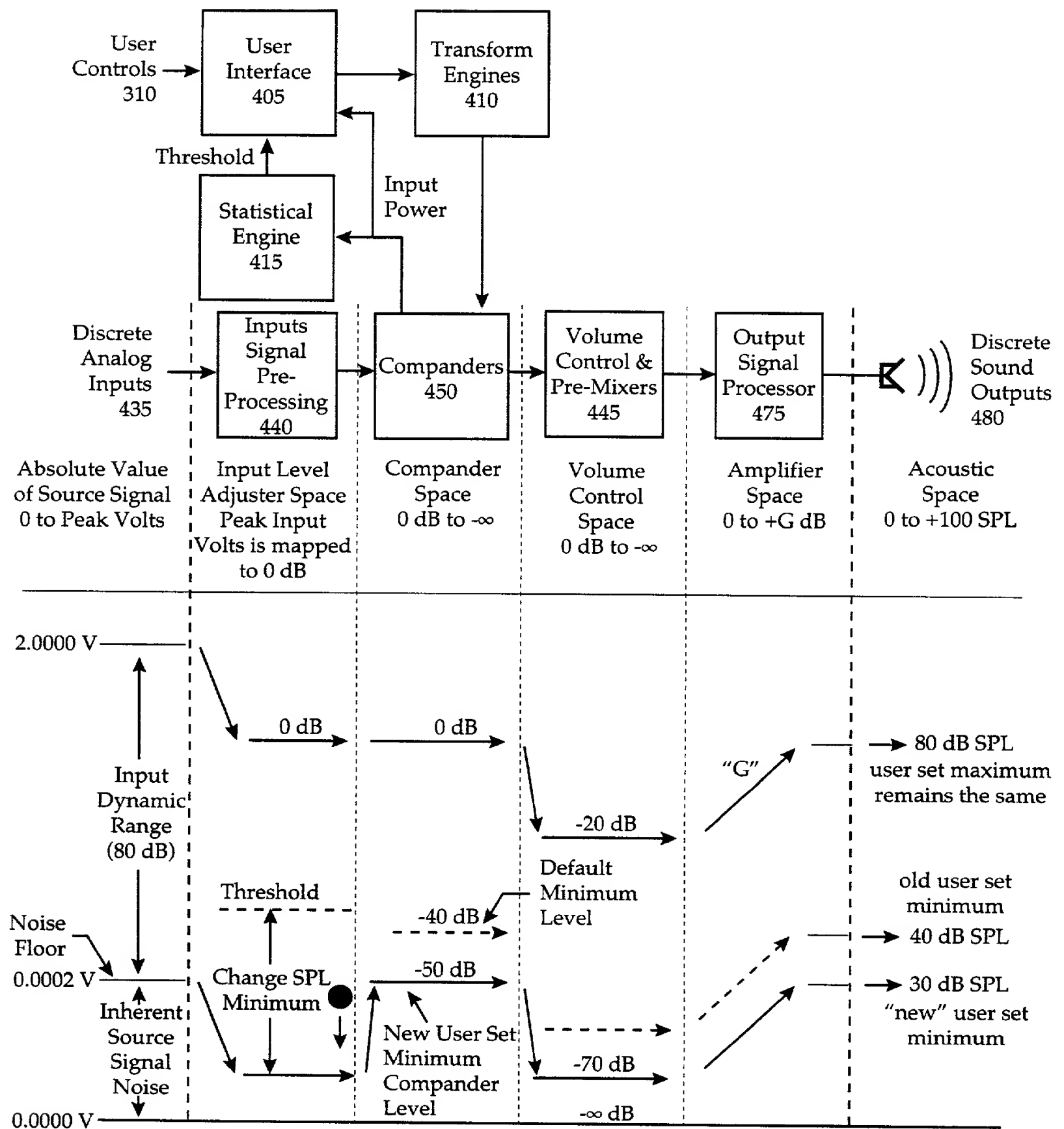


FIG. 73

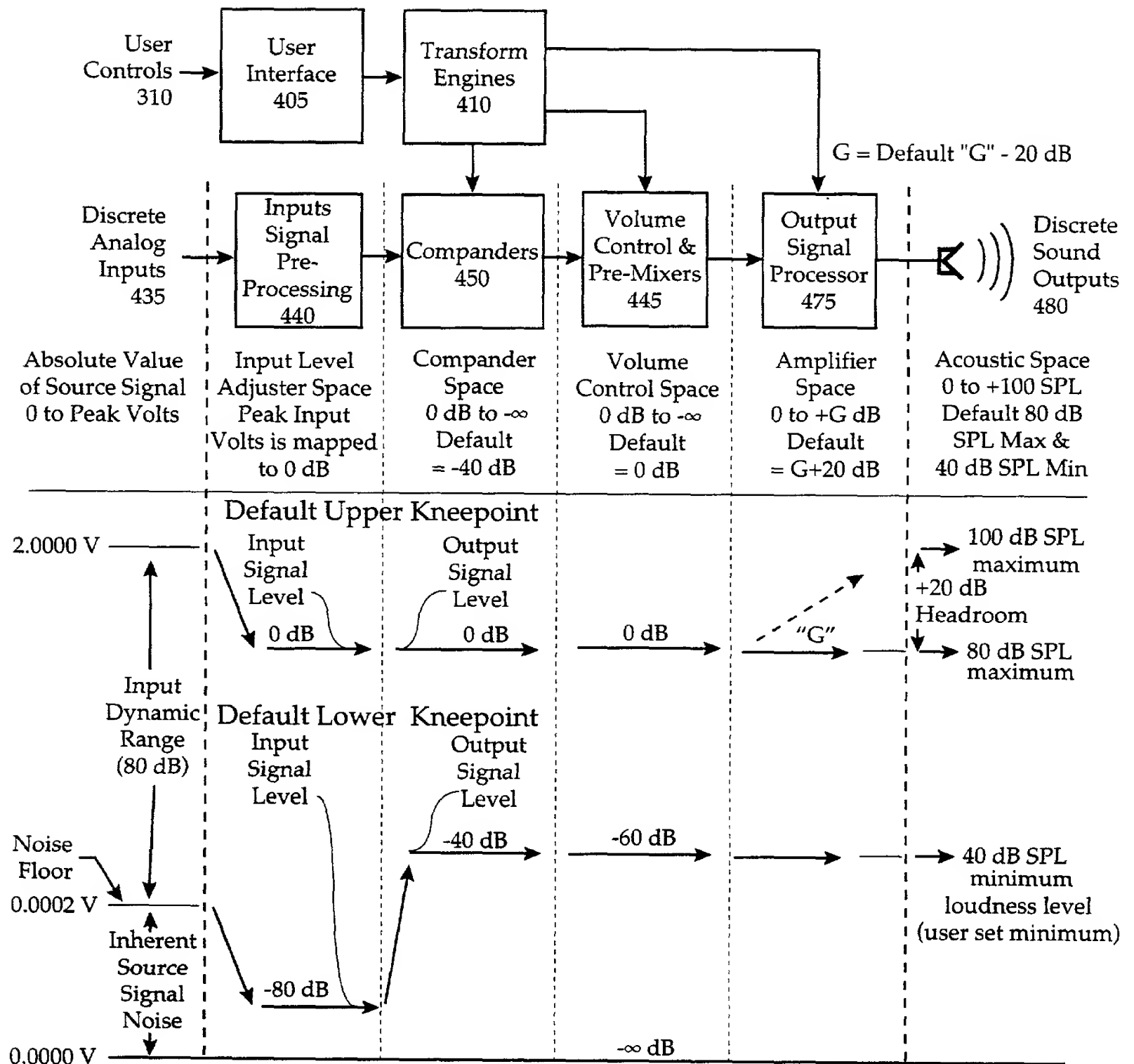


FIG. 74

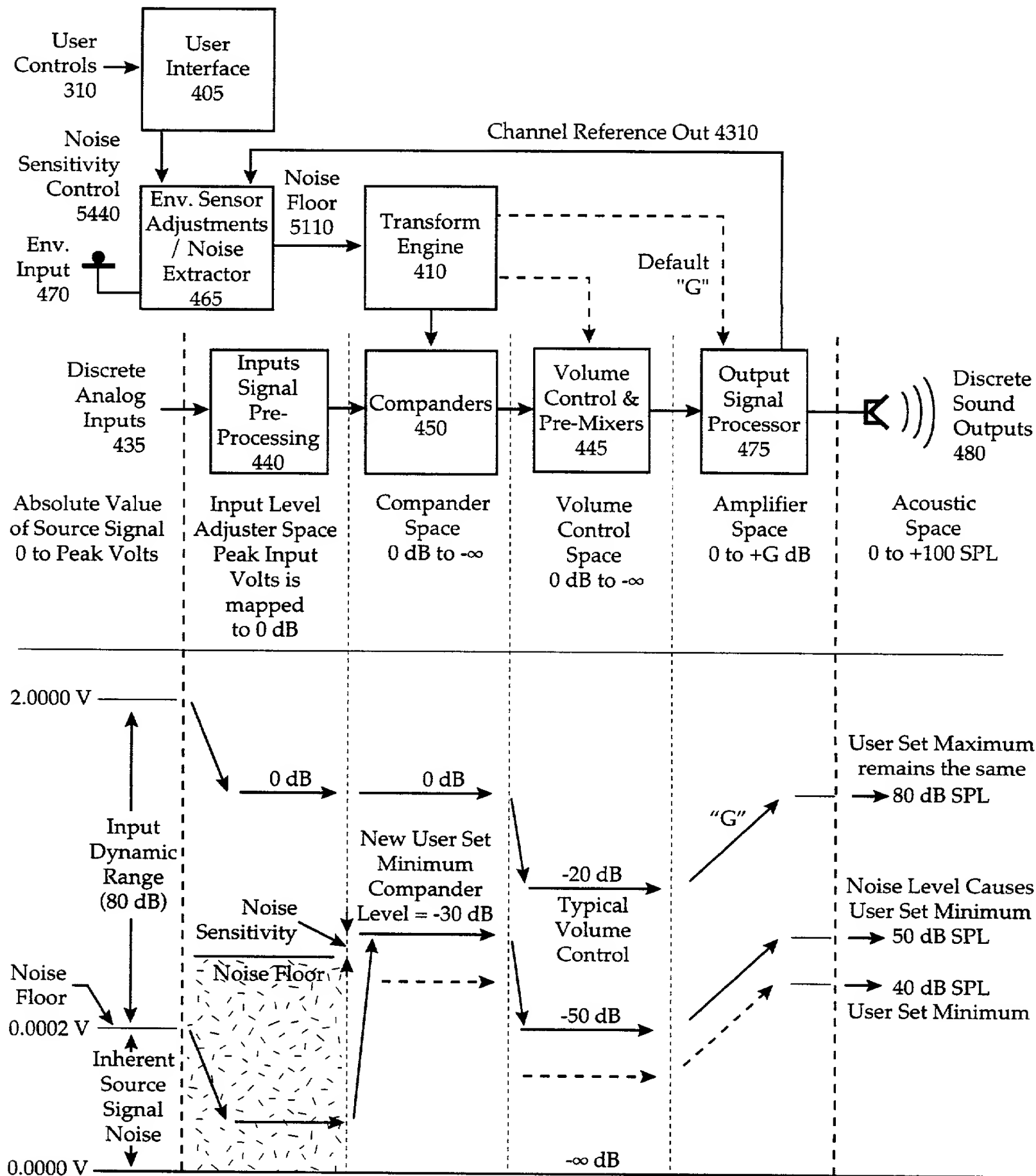


FIG. 75

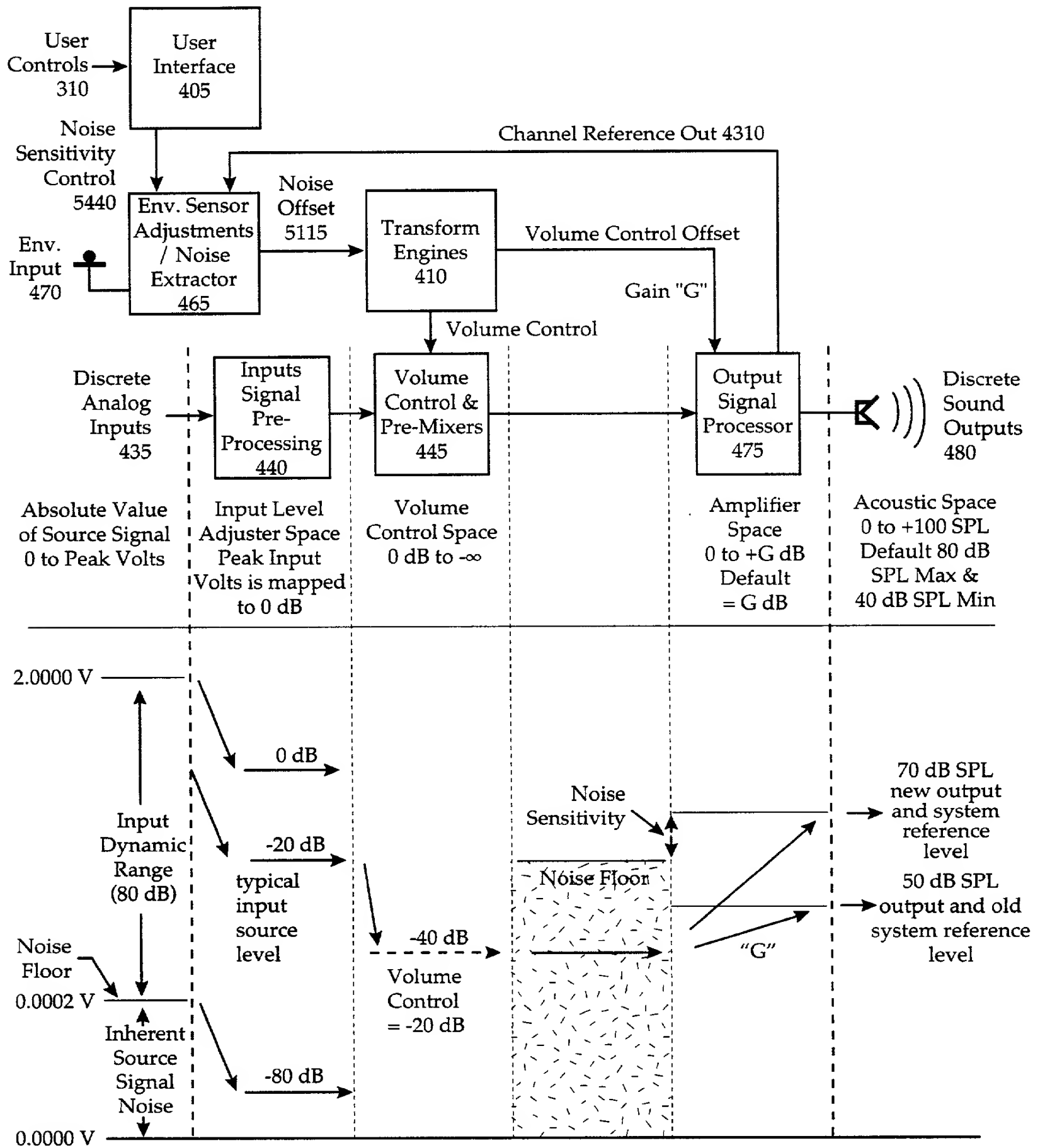


FIG. 76

Setup Command Decoder
and Setup Command Execute
660E and 660F

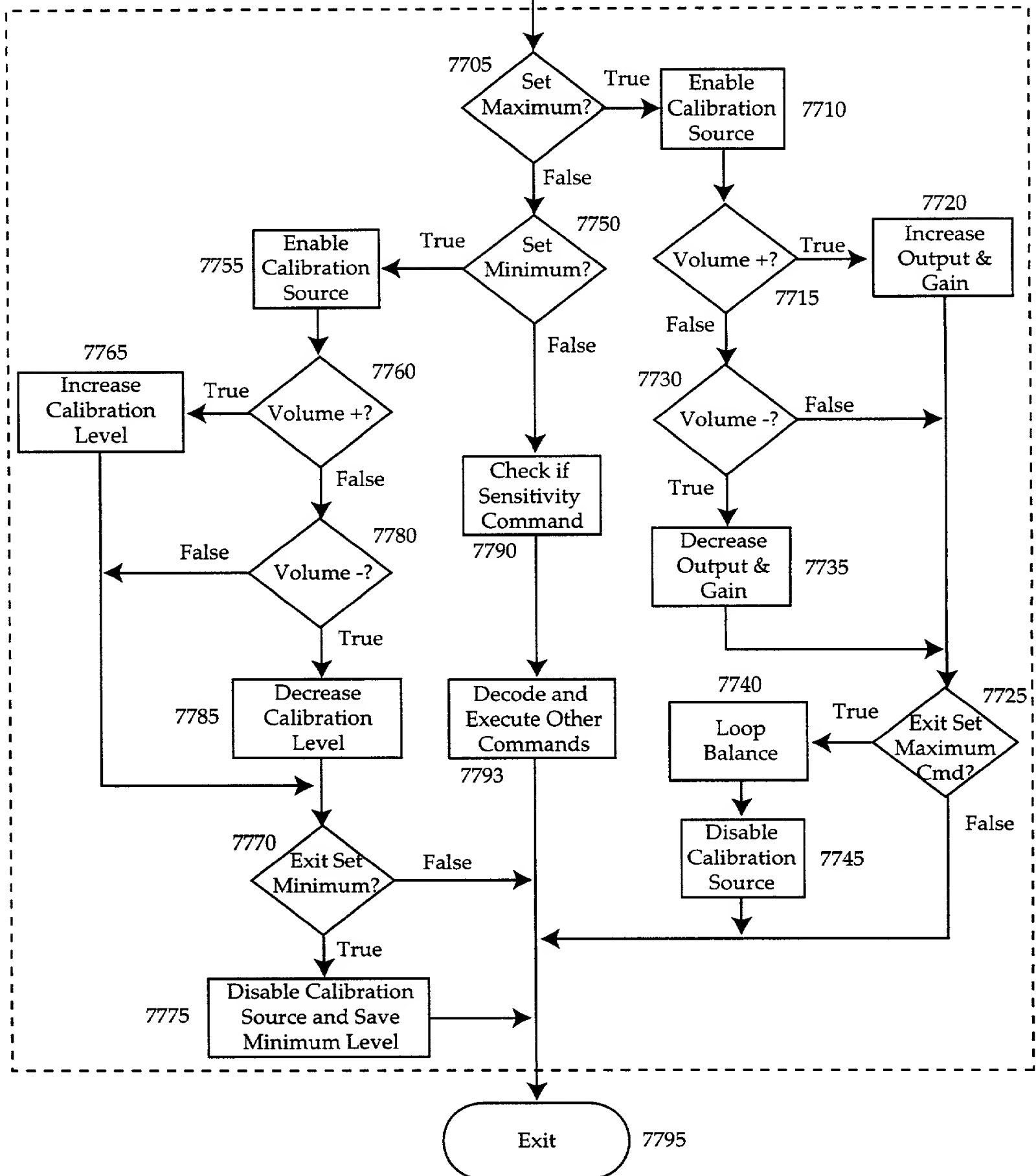


FIG. 77

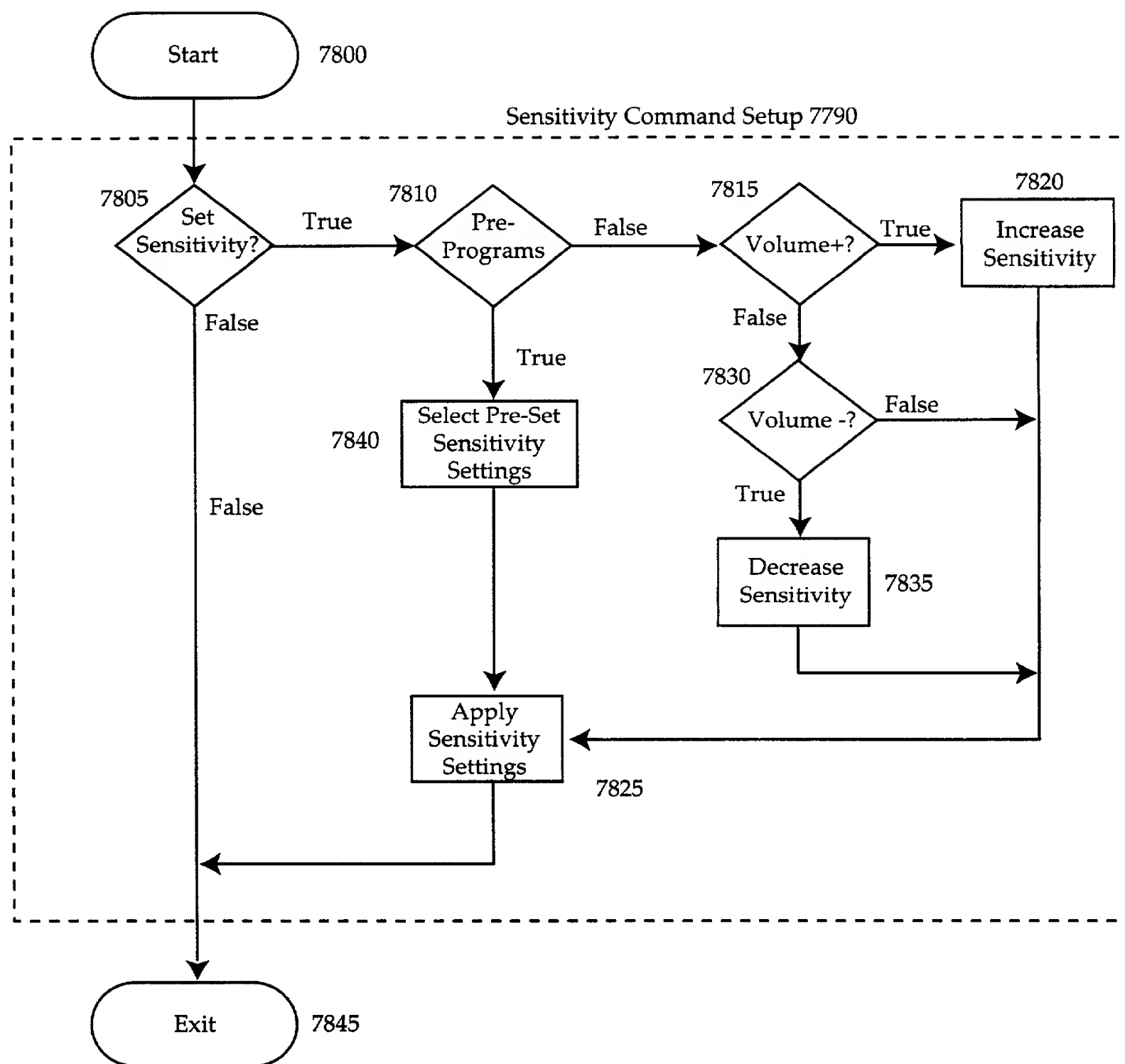


FIG. 78

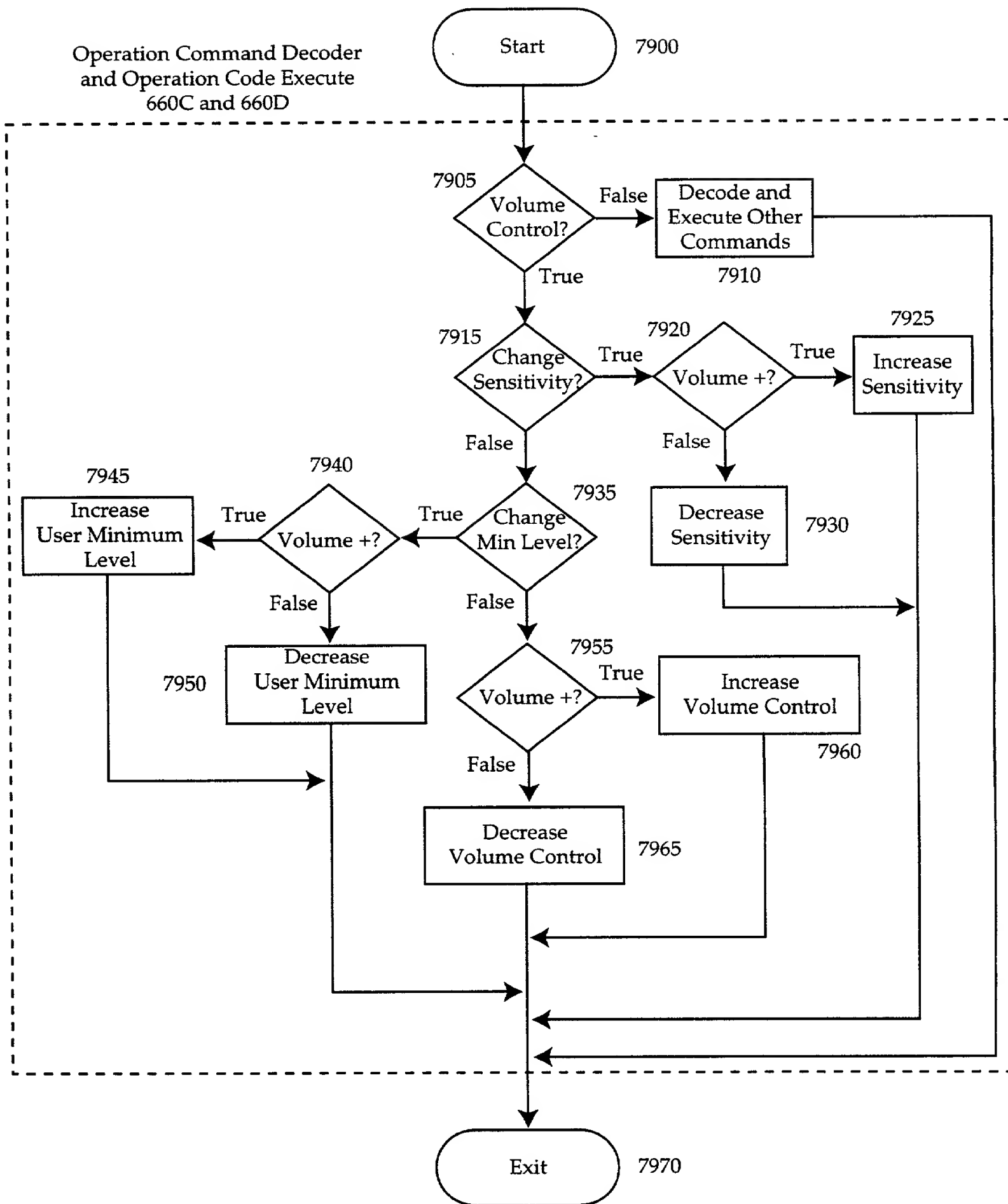
Operation Command Decoder
and Operation Code Execute
660C and 660D

FIG. 79